



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? YES

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):

Proposed expansion of Bloubank Estates CC's Taaibosch Piggery, located on: Rem of the Farm Taaiboschspruit 400, IQ; Portions 2 & 12 of the Farm Kaalplaats 394; and Portions 1, 4 & 5 of the Farm Taaiboschpruit 401, IQ, Fochville, Merafong City Local Municipality, Gauteng

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?

NO

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

N/A

If yes, have you applied for the authorisation(s)? **NO**
 If yes, have you received approval(s)? (attach in appropriate appendix) **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
2012 / 2013 Integrated Development Plan	Merafong City Local Municipality	2012 / 2013
Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972)	Department of Agriculture	1972
Animal Diseases Act (Act No. 35 of 1984)	Department of Agriculture	1984

Animal Protection Act (Act No. 71 of 1962)	Department of Agriculture	1962
National Water Act (Act No. 36 of 1998)	Department of Water Affairs and Environment	1998
National Environmental Management Act (Act No. 107 of 1998), Environmental Impact Assessment Regulations (2010).	Department of Environmental Affairs	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	<p>The proposed project involves the upgrade and expansion of the existing Taaibosch Piggery. This facility is located on Rem of the Farm Taaiboschspruit; Portions 2 & 12 of the Farm Kaalplaats 394 and Portion 1 of the Farm Taaiboschpruit 401, IQ, Fochville, Merafong City Local Municipality, Gauteng.</p> <p>The properties are collectively approximately 36 ha in extent, are all unzoned and currently feature agricultural activities in the form of the above-mentioned operational piggery.</p> <p>The Piggery has recently undergoing an Environmental Authorisation Process for a Biogas installation under the National Department for Environmental Affairs. As a fundamental aspect of the Biogas installation is the establishment of an anaerobic lagoon (which requires a Waste License), assessment of the new lagoon has not been included in this Application. The Biogas Application authorisation was received on 15th October 2012 (ref No. EIA No: 12/12/20/1984).</p> <p>Activity The proposed development aims to improve current piggery practices in-line with new legislation on swine welfare through the expansion and upgrade of the facility. The expansion will result in the farm increasing sow numbers by a total of 250 sows. Refer to Table 1.</p> <p>Table 1: Current and proposed swine numbers</p> <table border="1"> <thead> <tr> <th>SWINE TYPE</th> <th>CURRENT</th> <th>PROPOSED</th> </tr> </thead> <tbody> <tr> <td>Lactating Sows</td> <td>370</td> <td>390</td> </tr> <tr> <td>Dry Sows</td> <td>1680</td> <td>1910</td> </tr> <tr> <td>Weaners</td> <td>7160</td> <td>8940</td> </tr> </tbody> </table>	SWINE TYPE	CURRENT	PROPOSED	Lactating Sows	370	390	Dry Sows	1680	1910	Weaners	7160	8940
SWINE TYPE	CURRENT	PROPOSED												
Lactating Sows	370	390												
Dry Sows	1680	1910												
Weaners	7160	8940												

		<p>Growers</p>	<p>10710</p>	<p>13604</p>
<p>It is proposed that this expansion will occur in phases. The proposed upgrade and expansion will comprise the following:</p>				
<p><u>Phase 1</u></p>				
<p>Kaalplaas:</p>				
<ul style="list-style-type: none"> • 1 x Group Housing for sows (51 pens x 8 sows + 20 x 1 gilts = 428 Animals) Dimension - 103.5m x 15m 				
<p>SEW:</p>				
<ul style="list-style-type: none"> • 1 x Weaner House (4 Compartments x 24 pens x 12 weaners = 1152 Animals) Dimension - 48m x 15m 				
<p><u>Phase 2</u></p>				
<p>Taaibosch:</p>				
<ul style="list-style-type: none"> • 1 x Group Housing for sows (51 pens x 8 sows + 20 x 1 gilts = 428 Animals) Dimension - 103.5m x 15m 				
<ul style="list-style-type: none"> • 2 x Grower Houses (78 pens x 12 growers = 936 Animals) Dimension - 103.5m x 9.8m 				
<p><u>Phase 3</u></p>				
<p>Taaibosch:</p>				
<ul style="list-style-type: none"> • 2 x Grower Houses (78 pens x 12 growers = 936 Animals) Dimension - 103.5m x 9.8m 				
<p><u>Phase 4</u></p>				
<p>SEW:</p>				
<ul style="list-style-type: none"> • 1 x Additional Weaner House - 48m x 15m 				
<p>Taaibosch:</p>				
<ul style="list-style-type: none"> • 1 x Additional Building "Jongstal" - 103.5m x 9.8m 				
<p>The proposed upgrade will result in a piggery which is more efficient and streamlined, making use of new "best-practice" technology which is currently utilised in Europe and the United States. The upgraded and expanded piggery will be more pig-friendly, providing a controlled environment, with continuous feeding.</p>				
<p>The pigs will stand on fully slatted concrete floors above impermeable, concrete-lined pits designed to capture and store pig waste. The pits will be carefully engineered to facilitate flushing of the pig waste with minimal additional input of water. Waste generated by pigs will fall through the slatted floors and into these manure pits, which will be drained once every cycle.</p>				
<p>The piggery houses will have a natural, negative pressure ventilation system that will be augmented by recirculation fans. The windows will have anti-bird screens and automatic-curtain-control to regulate internal ambient temperature.</p>				
<p>The piggery area will be fenced to control access. All visitors to the site will be accompanied by management and visits will take place by prearranged appointment, according to the Department of Agriculture's Pig Compartment Assurance system.</p>				
<p>Ablutions and shower facilities are available to all staff. Sewage is and will continue to be directed into existing septic tanks on the site. Grey water generated by the showers is directed into existing soakaways. The septic tank and soakaways do not need to be upgraded to cater for the proposed expansion.</p>				

Services

Water will be supplied from registered boreholes located on the property and authorised as follows:

Unit Name	Water Use Certificate #	Registered Volume / Annum
Kaalplaas Unit	20011924	55 480 m ³
Weaner Unit	20031369	51 465 m ³
Taaibosch Unit	20031378	55 480 m ³

A total consumption of 58 975 m³ per annum will be required to support the upgraded and expanded piggery, the total requirements are calculated as follows:

Unit Name	Water Use / Day	Water Use / Annum
Kaalplaas Unit	52.60 m ³	19 199 m ³
Weaner Unit	19.60 m ³	7 154 m ³
Taaibosch Unit	89.37 m ³	32 620 m ³

It should be noted that the proposed piggery upgrade will include the introduction of latest technologies, specifically the replacement of non-slatted buildings with fully-slatted buildings. This will improve water use efficiency within the piggery as the amount of water required for cleaning purposes per pig will decrease.

Sewage generated by workers on the property will continue to be disposed of in the manner in which it has been disposed of in the past, namely, via septic tank and soak away system. Grey water generated by the staff showering within the facility will continue to be directed into soakaways.

Effluent generated by the expanded piggery will be disposed of by the current and recently authorised lagoons located on the property. It is proposed that this effluent will be utilised in the generation of electricity through the capture and combustion of biogas and methane. The current effluent lagoons on the property are not at capacity and thus are able to accept effluent from the expanded piggery until such time as the biogas lagoon is completed.

Electricity currently exists on the site and can be easily extended to the proposed new houses. The power produced by the biogas facility (when operational) will supplement the Eskom supplies.

As the new proposed houses will have fully-slatted floors, they will not make use of bedding material (sawdust). Thus, the proposed development will result in a significant decrease in the amount of bedding material used on site and a significant decrease in the amount of solid waste generated on site.

Domestic solid waste generated in the offices and by staff will continue to be collected and transported to the municipal landfill site for disposal.

Other Inputs

Feed is produced on site, and is supplemented by produce from local farmers. Supplementary feed is generally delivered to site

	<p>as and when needed (generally on a monthly basis).</p> <p>Production Cycle</p> <ul style="list-style-type: none"> (i) Sows are on heat for 4-5 days after the weaning of their previous piglets and are mated during this period; (ii) Sows are pregnant until day 115; Piglets are left with the sow until day 28 and are then weaned; (iii) Weaners – day 28 - 70; (iv) Growers – day 70 – 154. Once fully grown, these pigs are transported to the abattoir; (v) Clean pen – once all growers have been transported to the abattoir, all pens are washed and disinfected before commencement of the next cycle. <p>Outputs</p> <p>Once a week, 850 finished pigs will be transported by truck and trailer to the abattoir for slaughtering, processing and dispatch to external markets. The abattoir is located at Enterprise Foods's Pork Packers site in Olifantsfontein, Gauteng</p> <p>Animal waste, primarily in the form of manure and urine will be used, as described above, in the generation of electricity through the installation of a biogas plant. On average, each pig will generate approximately 5 litres of waste per day.</p> <p>Hygiene and Disease Control</p> <ul style="list-style-type: none"> • The piggery will comply with the set of minimum bio-security measures to control contagious pig diseases, especially Classical Swine Fever and Foot and Mouth Disease, through the process of compartmentalisation. These measures are supplied by the EU and the South African Pork Producers Organisation and administered and monitored by the South African Directorate of Animal Health. • During the one week unoccupied period, the empty piggery unit will be thoroughly cleaned and disinfected using SABS approved chemicals that satisfy the requirements specified in the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972). • Standard vaccination programmes for contagious diseases are adhered to. • A specialist consulting veterinarian will conduct quarterly audits to ensure that the highest health standards are maintained. • Medicines will be stored in a secure, designated room. <p>Mortality</p> <p>With the new technology a mortality rate of 3.5% can be anticipated at the piggery. This equates to an additional 600kg of carcasses per month needing to be disposed of by the facility. All carcasses are donated to a lion breeding project, a predator rehabilitation centre and a vulture project or composted.</p> <p>Traffic</p> <p>The expanded and upgraded facility will continue to make use of the N12. It is anticipated that the number of trucks delivering raw materials for feed mixing will increase slightly from 35 trucks to 40 trucks per month. The number of trucks taking the pigs to the abattoir will not increase, as current trucks will be used to optimal capacity as this is currently not the situation.</p>
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	Property	No alternate properties or locations for the proposed activity have been identified or investigated. The reason for this is that the proposed development is for the expansion and upgrade of an existing facility. It would not be economically feasible for the Applicant to identify a new property, purchase this property and establish an entirely new facility on this property. It is more economically viable for the Applicant to modify the existing facility. In addition, if an entirely new facility were to be established, the environmental impacts would be significantly greater and more adverse compared to the upgrade of the existing facility. Furthermore, in terms of biosecurity, the piggery facility should be located at least 1.5 km from the nearest piggery. The current site complies with this requirement. The current site is level and will require no landscaping, in addition, the site contains no sensitive vegetation or habitats which would be adversely affected by the proposed development. No residential areas are located in close proximity to the preferred site and thus odour, pest, noise and visual impacts associated with the operational piggery will not affect neighbours greatly (It should be noted that the proposed development will decrease odour, pests and noise due to the installation of new and improved modern technology). For these reasons, no alternate properties have been investigated in the Basic Assessment Report.
2	Type	No alternate types of activity have been identified or investigated in the Basic Assessment Process. The reason for this is that an operational piggery currently exists on the site, which the Applicant proposes to upgrade and expand. It would not be economically feasible or practical for the Applicant to undertake a different type of activity on the property as the Applicant's skills lie in the pork-production industry.
3	Design	No alternate layouts have been proposed for investigation as part of the Basic Assessment Process as the preferred layout will allow for the most efficient use of space and the maximisation of pig numbers, both of which are required for the proposed expansion of the facility. In addition, the proposed layout will allow the piggery owner to comply with new welfare legislation relating to the operation of piggeries.
4	Technology	The technology proposed for use in the proposed upgrade and expansion will allow for compliance with international best practice standards in terms of improved pig welfare, reduced odours, reduced pests, better waste management, water use efficiency, electricity use efficiency and more effective pork production. No alternate technologies have been investigated as the proposed technology represents the best in the world at present.

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

See above

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:

Approx. 9 500m²

Alternatives:

Alternative 1 (if any)
Alternative 2 (if any)

[Redacted]
Ha/ m²

or, for linear activities:

Proposed activity

Length of the activity:
[Redacted] **N/A**

Alternatives:

Alternative 1 (if any)
Alternative 2 (if any)

[Redacted]
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:
[Redacted] **36 ha**

Alternatives:

Alternative 1 (if any)
Alternative 2 (if any)

[Redacted]
Ha/m²

5. SITE ACCESS

Proposal

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

YES [Redacted]
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 – existing – access onto the N12.

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
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
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 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 times

N/A

Instructions for completion of Section B for location/route alternatives

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

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

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

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

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

N/A

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

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

1. PROPERTY DESCRIPTION

Property description:
Rem of the Farm Taaiboschpruit
Portions 2 & 12 of the Farm Kaalplaats 394
Portions 1, 4 & 5 of the Farm Taaiboschpruit 401

 (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° 31' 16.02" S	27° 21' 29.28" 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

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)	NO
Dolomite, sinkhole or doline areas	NO
Seasonally wet soils (often close to water bodies)	NO
Unstable rocky slopes or steep slopes with loose soil	NO
Dispersive soils (soils that dissolve in water)	NO
Soils with high clay content (clay fraction more than 40%)	NO
Any other unstable soil or geological feature	NO
An area sensitive to erosion	NO

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

b) are any caves located on the site(s) YES NO

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

Latitude (S):	Longitude (E):

c) are any caves located within a 300m radius of the site(s) YES NO

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

Latitude (S):	Longitude (E):

d) are any sinkholes located within a 300m radius of the site(s) YES NO

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

Latitude (S):	Longitude (E):

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

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? YES NO

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

7. GROUNDCOVER

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

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

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =	Landscaped (vegetation) % = 35
Sport field % =	Cultivated land % = 60	Paved surface (hard landscaping) % = 5	Building or other structure % =	Bare soil % =

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

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:

N/A

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

If yes complete specialist details

Name of the specialist: **N/A**

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

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E-mail: Fax:

Are any further specialist studies recommended by the specialist? **NO**

If YES, specify: N/A

If YES, is such a report(s) attached? **NO**

If YES list the specialist reports attached below

N/A

Signature of specialist: _____ Date:

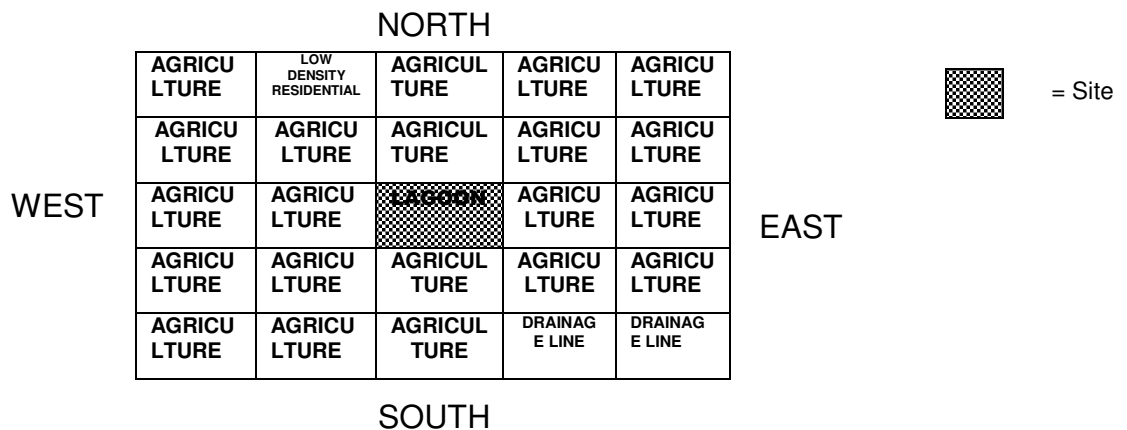
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

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
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):	Effluent Lagoon			

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 **NO**

If yes indicate the type of reports below

N/A

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 local economy of the Merafong City Local Municipality is driven by mining, and remains the largest economic contributor. However, the 2012/2013 IDP states that there was an increase in the contribution to employment of the agricultural sector over the past decade. The contribution of agriculture to the local economy has also been decreasing over the past decade, with a sharp increase in productivity.

The mining industry is still by far the most important and largest employer in the West Rand District Municipality and the MCLM. However, there has been a downward trend in mining employment over the last decade in the municipality, highlighting the need for economic diversification. The decreasing trend in agriculture over the last decade has hampered employment opportunities in the sector. The MCLM contains high potential agricultural areas, with potential for increased intensive agricultural production. Increased productivity is coupled with an increase in employment and the overall GGP contribution of the sector to the local economy. The proposed expansion of the piggery will create 20 employment opportunities during the construction phase of the expansion. In addition to the construction phase, at least 3 unskilled, 3 skilled and 1 professional employment opportunity will be created.

Pork is an affordable protein source, when compared to other meat products. According to studies posted on the South African Pork Producers' Organisation (SAPPO) website (<http://www.sapork.biz/>):

- **Pork is an excellent source of complete protein and is considered a nutrient rich food;**
- **Pork is low in fat and cholesterol;**
- **Is a great source of vitamins and minerals;**
- **Pork is a white meat and naturally lower in fat; and**
- **Is a great option for the health conscious.**

The need for pork production has therefore significantly increased. The expansion of the piggery will therefore address the need for pork product, economic diversification, employment opportunities and exploiting a high potential agricultural area.

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.*

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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?

	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:

N/A

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

	NO
	NO

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

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

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? NO

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

No comments received in response to the circulation of the BID. Comment will be included in the FBAR.

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? NO

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

N/A

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

No comments received in response to the circulation of the BID. The EAP has followed due course with regard to the public participation process. The EAP will seek to ensure that comments are received following the circulation of the DBAR.

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
Impossible to predict

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

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

Waste will primarily consist of packing materials (shrink wrap, cardboard) and litter generated by construction staff and building rubble. Any unused bricks will be donated to the local farm workers for use in building. Any waste concrete will be crushed and used as fill beneath new concrete floors and to repair and resurface gravel roads on the farm. Any scrap metal will be transported to the nearest scrap dealer if it cannot be reused. Any remaining construction waste will be placed in skips and disposed of at the nearest appropriate permitted landfill site. It is recommended that during construction, different skips be provided for the different waste types.

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

Recyclable waste (paper, plastic, tins and glass) will be taken to the nearest recycling depot. Any leftover solid waste will either be disposed of at a registered landfill site or donated to the local community - if appropriate.

Will the activity produce solid waste during its operational phase?

YES
Impossible to predict

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

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

With the exception of pig carcasses, all waste generated on the site will be stored in bins until it can be transported to the nearest permitted landfill site by the piggery operator. (If any medical waste is produced (e.g. needles), this waste will be removed by the vet, and disposed of via existing veterinary medical waste streams).

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?

NO
However the amount of additional waste requiring disposal at a landfill site as a consequence of this development will be less than 1/2m²/month.

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

Mortalities will be donated or composted in an already established carcass pit on the property.

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?

NO

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

N/A

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

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:

N/A

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

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

N/A m³

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

NO

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

YES
However this has been dealt with via a separate Waste Application for a Biogas Installation
3000 m³

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

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

The animal waste, manure, urine and water used to wash down the pig units, will be directed into the existing and new Biogas effluent lagoons on the property. Methane gas will be harvested from these lagoons and will be utilised in the onsite biogas facility, which will generate electricity for the piggery activities. After the solids have been settled out in the lagoon system, the waste water is and will continue to be irrigated onto adjacent lands as fertilizer.

The proposed technology is far more water efficient compared to current technology used at the facility.

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?

NO

If yes, provide the particulars of the facility:

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

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

The animal waste, manure, urine and water used to wash down the pig units, will be directed into the existing and new Biogas effluent lagoons on the property. Methane gas will be harvested from these lagoons and will be utilised in the onsite biogas facility, which will generate electricity for the piggery activities. After the solids have been settled out in the lagoon system, the waste water is and will continue to be irrigated onto adjacent lands as fertilizer.

Liquid effluent (domestic sewage)

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

NO

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

N/A

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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

NO

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

NO

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

The current septic tank and soakaways have capacity to cater for the additional staff.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES

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

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:

There are two types of emissions which will be generated by the proposed development: dust from vehicles using the gravel access road and odour from piggery waste.

Traffic dust will most likely be minimal given that the proposed development will not result in a significant increase in the amount of traffic along the access road (except during the construction phase, but this is a temporary impact and can be mitigated against – refer to EMPr).

Odour generated by the operational piggery is a complex and emotive issue. The odorants in pig slurry are formed mainly as a result of anaerobic metabolism processes which occur within the slurry lagoons. The variety of odorants in pig slurry is considerable and many of these odorants are smelly, even at low concentrations.

Emissions from typical piggeries are not dangerous to human or animal health. Rather they have potential nuisance values that if sufficiently concentrated can lead to annoyance. The annoyance threshold, however, depends on the receptor group. High thresholds are generally typical of people working with pigs in rural communities in general, whereas low thresholds are typical of urban dwellers. As the piggery is located in a rural area and as the piggery is existing, it is unlikely that new odour concerns regarding the upgraded and expanded facility will be raised. It is likely that the use of new technology in the piggery will result in a significant decrease in odour production from the operational facility. It should also be noted that the anaerobic lagoon, which forms part of the Biogas Installation, can result in an 80% reduction in odour emissions.

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:

**Current: 4000 m³
Additional: 900 m³**

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

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

YES

If yes, list the permits required

Sub-section 21 (a) of the National Water Act (Act No 36 of 1998). Permits attached in the Appendices.

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

YES

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

YES

3. POWER SUPPLY

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

Eskom and biogas used as a renewable energy supply.

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:

The proposed piggery houses will make use of passive ventilation; will have insulated roofs and thermal sensors to regulate automatic curtains to maintain optimal ambient temperatures. These measures minimise the need to actively regulate temperature and airflow within the piggery houses. Furthermore, the orientation of the proposed houses will ensure a relatively even thermal load from solar radiation and minimise the need for artificial active regulation. All of these measures will increase the energy efficiency of the facility.

In addition, the implementation of the proposed biogas facility will reduce reliance on Eskom energy supplies and will ensure this activity is energy efficient.

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

See above

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.

No comment was received in response to the circulation of the BID, site posters and newspaper adverts. Comment will be included on circulation of the DBAR.

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):

See above response.

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

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

ASPECT	CLASS	CRITERIA
NATURE OF IMPACT	Positive	The impact on the environment will be positive.
	Negative	The impact on the environment will be negative.
	Direct	The impact is caused directly by the activity and generally occurs at the same time and at the place of the activity.
	Indirect	The impact induces changes that may occur as a result of the activity.
	Cumulative	The impact is a result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities.
OCCURRENCE OF IMPACT	Immediate	The impact will happen immediately
	Delayed	There will be a delay in the impact occurring.
PROBABILITY OF IMPACT OCCURRING	Definitely	The impact will definitely occur even with mitigation (100%).
	Likely	It is likely that the impact will occur (60%-99%).
	Fair	There is a fair chance that the impact will occur (30% -59%).
	Unlikely	It is unlikely that the impact will occur (0% - 29%)
EXTENT OF IMPACT	Site	The impact will be limited to the site.
	Local	The impact will affect the local area (within a radius of 40km).
	Provincial	The impact will affect areas beyond the site but within the boundaries of the Province.
	National	The impact will affect areas beyond the Province but within the boundaries of South Africa.
DURATION	Short-term	0-5 years (construction phase).
	Medium-term	5-40 years (construction and operation).
	Long-term	(>40 years).
	Permanent	Permanent damage to the environment.
SIGNIFICANCE OF IMPACT	Low	Small impact / disturbance.
	Medium	Moderate impact / disturbance expected.
	High	Significant impact / disturbance expected.

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

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Potential exists for soil erosion to occur if the vegetation is cleared.	Negative Direct Immediate Fair Site Long-term Low	Areas will be protected against erosion by soil stabilisation mechanisms, such as cladding or netting. These mechanisms will facilitate the establishment of vegetation.	Negative Direct Immediate Unlikely Site Long-term Low
Exposed areas during the construction phase have the potential to cause wind-blown dust.	Negative Direct Immediate Fair Site Long-term Low	Exposed surfaces, which are vulnerable to wind erosion, will be compacted by spraying water to prevent dispersion.	Negative Direct Immediate Unlikely Site Long-term Low
Severe frost and the dry conditions in winter impede re-vegetation and land rehabilitation efforts.	Negative Direct Immediate Fair Site Long-term Low	No work will be carried out during windy, dry conditions and re-vegetated plants are to be covered to prevent severe weather conditions.	Negative Direct Immediate Unlikely Site Long-term Low
Potential exists for additional traffic to generate additional dust during the construction phase.	Negative Direct Immediate Fair Site Short-term Low	Dust suppression measures (e.g. water spraying) will be incorporated on all construction activities and vehicle access routes.	Negative Direct Immediate Unlikely Site Short-term Low
Vehicle fumes during the construction phase may reduce air quality in the area.	Negative Direct Immediate Fair Site Short-term Low	All construction vehicles and machinery will be maintained in order to reduce emissions.	Negative Direct Immediate Unlikely Site Short-term Low
Builders rubble and other waste could negatively impact the site and surrounding environment if not correctly disposed of.	Negative Direct Immediate Likely Site Short-term High	Waste should be recycled or donated to the community where possible. If not, waste must be stored in suitable waste receptacles before being disposed of at a registered landfill site.	Negative Direct Immediate Unlikely Site Short-term Low
If stormwater is not correctly channelled off the site, increased erosion may occur.	Negative Indirect Immediate / delayed Likely Site Long-term High	A site specific stormwater drainage system will be implemented (refer to the EMPr).	Negative Indirect Immediate / delayed Unlikely Site Long-term Low
The development expansion could result in increased alien vegetation as a result of soil movement during construction.	Negative Direct Immediate / delayed Likely	<ul style="list-style-type: none"> The excavated material from the site will be stockpiled at a designated location within the development site, and 	Negative Direct Immediate / delayed Unlikely

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	Site Long-term Low	<p>protected from erosion.</p> <ul style="list-style-type: none"> • Alien vegetation will be cleared before and after construction, and regular alien vegetation clearing will take place during operation. • Re-vegetation will be carried out as part of the construction site rehabilitation plan. • The re-vegetation process will only use indigenous plants, native to the area. 	Site Long-term Low
There is potential for vegetation, structures, equipment and bedding waste material to ignite from lightning, sparks, negligence or arson. A fire could have serious environmental and financial implications to the owners of the piggery, as well as for surrounding land owners.	Negative Direct Immediate / Delayed Fair Site / Local Medium-term Low	<ul style="list-style-type: none"> • Fire breakers must be maintained around the perimeter of the development footprint in accordance with the National Veld and Forest Fire Act (Act 101 of 1998). • A Fire Management system and emergency plan has been compiled as part of the EMP. 	Negative Direct Immediate / Delayed Unlikely Site / Local Medium-term Low
The proposed project has the potential to create employment and skills development during the construction phase.	Positive Indirect / Cumulative Delayed Definitely Local Permanent High	None.	N/A
During the construction phase, the proposed development will contribute to the local economy through the use of local contractors, suppliers and service providers.	Positive Indirect / Cumulative Delayed Definitely Local / Provincial Permanent High	As far as possible the construction phase of the project will maximise the use of available local resources, such as labour and building materials.	N/A
Cultural, paleontological, archaeological and historical resources may be discovered during the construction phase.	Negative Direct Immediate Unlikely Site Short-term Low	Any subterranean cultural, archaeological, paleontological or historical resources unearthed during the construction phase will be immediately reported to the Gauteng Heritage Authority.	Negative Direct Immediate Unlikely Site Short-term Low
Potential deterioration of the quality of the existing access road due to the movement of heavy construction vehicles.	Negative Direct Immediate Unlikely Site	All access routes and gravel roads will be maintained and upgraded during the construction phase.	Negative Direct Immediate Unlikely Site

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	Short-term Low		Short-term Low
The development site is located in a predominantly agricultural area characterised by large spacious land and away from residential zones. The nearest noise receptors are in Wedela across the N12 highway, approximately 8km north east from the development site. Noise from the proposed activity, can be potentially disturbing for the surrounding neighbours.	Negative Direct Immediate Unlikely Site Permanent Low	If required, noise attenuation measures will be implemented to comply with the Gauteng Noise Regulations, for both the construction and operation phases. However the noise created by the proposed activity is not expected to be problematic.	Negative Direct Immediate Unlikely Site Permanent Low
Potential exists for labourers, during the construction phase, or employees, during the operational phase, to trespass onto nearby properties. Crime in the area could increase during construction as a result of criminals posing as construction workers, or people seeking employment on the site.	Negative Direct Immediate Unlikely Site Short-term Low	<ul style="list-style-type: none"> • All personnel and contractors must undergo an induction before any construction activities begin. This induction will emphasize security, discipline, occupational health and safety, and fire prevention. • Any unlawful activities by contractors or employees during the construction phase of the project will be strictly dealt with in accordance with the contractual agreement. • Security fences and an access controlled gate are already in place to control the construction and production areas. 	Negative Direct Immediate Unlikely Site Short-term Low
Water from cement and concrete mixing, vehicle rinsing & washing may enter the stormwater system and subsequently into natural water systems.	Negative Direct / Indirect Immediate / delayed Fair Site / Local Medium-term Medium	<ul style="list-style-type: none"> • No cement or concrete mixing must take place on the soil surface. Cement mixers will be placed on large trays to prevent accidental spills from coming into contact with the soil surface. • Cement or concrete residue on vehicles must not be washed-off into the stormwater system on site. 	Negative Direct / Indirect Immediate / delayed Unlikely Site / Local Medium-term Low
Mismanagement of the effluent disposal systems could result in water pollution.	Negative Direct / Indirect Immediate / delayed Fair Site / Local Medium-term	Effluent disposal system must be regularly monitored and maintained. It must be noted that the anaerobic lagoon will have built-in sensors which monitor for leaks.	Negative Direct / Indirect Immediate / delayed Unlikely Site / Local Medium-term Low

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	Medium		
The use and spillage of chemicals utilised on site (such as antibiotics and disinfectants) could also result in contamination of groundwater.	Negative Direct / Indirect Immediate / delayed Fair Site / Local Medium-term Medium	<ul style="list-style-type: none"> • Applicant must pay particular attention to clean/dirty water separation whereby all clean water is kept away from all dirty water or contaminated water streams. • Soakaway area must be well monitored on a regular basis to ensure that their percolation efficiency is not compromised. Further, it must be ensured that the septic tanks are monitored and, if necessary, pumped out before they get over full. • Pharmaceuticals and chemicals must be used in the recommended quantities and manner, and must be stored in a secure, dry room and mixed in a designated area on an impermeable surface inside a dry room where spillages can be easily contained. 	Negative Direct / Indirect Immediate / delayed Unlikely Site / Local Medium-term Low
The new expanded facility is considered 'best practice' by international standards and has better ventilation and more efficient cleaning methods, than the current system so will reduce the impact of odours.	Negative Direct Immediate Unlikely Site Permanent Low	It must be ensured that the piggery houses are well protected from the entry of runoff and direct rainfall; it should be ensured as far as possible that flushing activities do not take place when meteorological conditions are favourable for carrying odour to vulnerable receptors.	Positive Direct Immediate Fair Site Permanent Low
Workers may be exposed to disease through the illegal consumption of condemned meat or the use of chemicals or medicines for pest control and hygiene. Diseases normally confined to pigs occasionally cross the species barrier and infect people, often with very serious consequences. H1N1 influenza is of particular relevance at present.	Negative Direct Immediate Unlikely Site Permanent Low	<ul style="list-style-type: none"> • Management and workers require training to be aware of appropriate ways of handling sick and dead animals. Workers must strictly adhere to the hygiene and health protocols outlined in the South African Pork Producer Organisation (SAPPO) and the Directorate of Animal Health's Minimum Bio-Security Measures Compartment Checklist. It must be ensured that all staff are well trained to 	Negative Direct Immediate Unlikely Site Permanent Low

		<p>understand and strictly adhere to the concept of compartmentalisation.</p> <ul style="list-style-type: none"> • All workers must follow the Meat Safety Act Regulations closely in terms of the treatment of dead animals, ensuring that they are stored in a designated and secure bin and disposed of in a secure, registered burial site. • Workers should be trained to use chemical products correctly and should know what to do in the event that chemicals are inadvertently ingested. 	
<p>Animal to animal disease transmission.</p>	<p>Negative Direct Immediate Unlikely Site Permanent Low</p>	<p>In compliance with the Animal Health Act (Act 7 of 2002), any occurrence of notifiable and controlled diseases must be reported to the State Veterinarian and steps must be taken to address the problem. Disease management procedures should be developed and implemented according to the protocols outlined in the SAPPO and the Directorate of Animal Health's Minimum Bio-Security Measures Compartment Checklist, including regular cleaning and disinfection of piggery houses and daily removal and hygienic disposal of dead pigs.</p>	<p>Negative Direct Immediate Unlikely Site Permanent Low</p>
<p>Aesthetics and Public Attitude. piggeries have negative connotations for many members of the public.</p>	<p>Negative Direct Immediate Unlikely Site Permanent Low</p>	<p>The visual impact is the starting point of community relations and should be considered as such. Good operational practice, including paying attention to the aesthetics of the area and adopting proactive public relations are an important factor in fostering positive public attitudes. As such, it is recommended that the Applicant develops and implements a public relations strategy including maintaining a complaints and responses register at the site office.</p>	<p>Negative Direct Immediate Unlikely Site Permanent Low</p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Vermin control	Negative Direct Immediate Unlikely Site Permanent Low	Hygiene protocols and vermin control strategies outlined in the SAPPO and Directorate of Animal Health’s Minimum Bio-Security Measures Compartment Checklist must be adhered to. Strategically placed traps should be used to catch rodents. These must be disposed of immediately in secure bins so that predatory and scavenger animals cannot gain access to them.	Negative Direct Immediate Unlikely Site Permanent Low
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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.

N/A

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:
Exposed soil following the decommissioning phase could result in soil erosion.	Negative Direct Immediate Likely Site Long-term Low	<ul style="list-style-type: none"> • Re-vegetation / rehabilitation must be carried out • The re-vegetation process will only use indigenous plants, native to the area. 	Negative Direct Immediate Unlikely Site Long-term Low
Potential exists for dust from the	Negative	Dust suppression measures	Negative

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decommissioning phase to impact on air quality.	Direct Immediate Likely Site Long-term Low	(e.g. water spraying) will be incorporated on all construction activities and vehicle access routes.	Direct Immediate Unlikely Site Long-term Low
Builders rubble and other waste created by the decommissioning phase could negatively impact the site and surrounding environment if not correctly disposed of.	Negative Direct Immediate Unlikely Site Long-term Low	Waste should be recycled or donated to the community where possible. If not, waste must be stored in suitable waste receptacles before being disposed of at a registered landfill site.	Negative Direct Immediate Unlikely Site Long-term Low

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.

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:

The jobs created and the increased revenue as a result of the expanded facility will have a positive cumulative effect in the local area.

5. ENVIRONMENTAL IMPACT STATEMENT

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

Proposal

The main environmental impacts are discussed in the headings below:

Site Clearance and Excavation: (temporary duration, low probability of occurrence post mitigation, low impact)
Site clearance and excavations are unavoidable during the construction phase.

Exposed soil during the construction phase could result in soil erosion and has the potential to cause wind-blown dust. The movement and exposure of soil could result in the establishment of alien vegetation. Severe frost and the dry conditions in winter impede re-vegetation and land rehabilitation efforts. No work will be carried out during windy, dry conditions and re-vegetated plants are to be covered to prevent severe weather conditions. Mitigation measures to limit soil erosion, dust and the establishment of alien vegetation are included in the EMP, and if implemented will not negatively impact upon the site or surrounding environment.

Waste: (permanent duration, low probability of occurrence post mitigation, low impact)

The implementation of the construction phase introduces an increase in the amount of litter and waste being generated. A system to collect and remove waste from site must be implemented and monitored by the designated ECO. Recycling is encouraged where possible. Disposal certificates are to be provided on request. Water from cement and concrete mixing, vehicle rinsing & washing and soil contaminated with concrete has to be collected and appropriately disposed of. This is included in the EMP.

Construction Nuisances: (temporary duration, high probability of occurrence, low impact post mitigation)

During preparation of the site, the use of heavy construction machinery and vehicles are unavoidable. These activities will cause noise and air pollution. Slow moving construction vehicles will also impact the current levels of service on the local road network. These nuisances, although higher than normal ambient levels, will not be constant, will only occur during the day and will be of temporary duration. The development site is located in a predominantly agricultural area characterised by large spacious land and away from residential zones. The nearest noise receptors are in Wedela across the N12 highway, approximately 8km north east from the development site. Noise from the proposed activity, can be potentially disturbing for the surrounding neighbours. Mitigations to limit and control noise and dust levels will be of high importance during construction. Recommendations have been indicated in this report and included in the EMP.

Socio-Economic Impact: (temporary duration, high probability, high positive impact)

During the construction phase, the proposed development will contribute to the local economy through the use of local contractors, suppliers and service providers. The proposed project has the potential to create employment and skills development during the construction phase. The MCLM contains high potential agricultural areas, with potential for increased intensive agricultural production. Increased productivity is coupled with an increase in employment and the overall GGP contribution of the sector to the local economy. The need for pork production has therefore significantly increased. The expansion of the piggery will address the need for pork product, economic diversification, employment opportunities and exploiting a high potential agricultural area.

Heritage Resources: (permanent duration, low probability of occurrence, low impact)

Cultural, paleontological, archaeological and historical resources may be discovered during the construction phase. Any subterranean cultural, archaeological, paleontological or historical resources unearthed during the construction phase must be immediately reported to the Gauteng Heritage Authority.

Security: (temporary duration, low probability of occurrence post mitigation, low impact)

Potential exists for labourers, during the construction phase, or employees, during the operational phase, to trespass onto nearby properties. Crime in the area could increase during construction as a result of criminals posing as construction workers, or people seeking employment on the site. All personnel and contractors will undergo an induction before any construction activities begin. This induction will emphasize security, discipline, occupational health and safety, and fire prevention. Any unlawful activities by contractors or employees during the construction phase of the project will be strictly dealt with in accordance with the contractual agreement.

Stormwater Management: *(permanent duration, low probability of occurrence, low impact)*

If storm water is not correctly channelled off the site, increased erosion may occur. Water from cement and concrete mixing, vehicle rinsing & washing may enter the stormwater system and subsequently into natural water systems. Storm water management measures are included in the EMPr.

Conclusion:

As demonstrated, the proposed site is well positioned and the activities proposed are in keeping with the future planned sense of place. The piggery is an existing operation and does not contain any fauna and flora of conservation importance. Provided that the management controls indicated in this report are robustly applied, then the probability of any negative environmental impacts occurring are extremely minimal. The authorisation of the proposed piggery expansion will address socio-economic issues such as job creation, skills transfer, increased need for pork production; identified as priority issues in the MCLM IDP.

It is required by the industry, retailers and consumers that all sows must be housed in groups instead of crates, which made the upgrade and expansion absolutely necessary. Furthermore, as a result of higher production rates and increased daily growth, the space requirements of grower and finisher pigs have been increased, which requires the increase of space available per animal in order to adhere to industry welfare regulations.

Alternative 1

N/A

Alternative 2

N/A

No-go (compulsory)

The no-go option would mean that the existing piggery would continue to utilise old technology and would thus not benefit from the above described advantages of upgrade, including improved pig welfare, reduced odour, reduced pest populations, better waste management, water and electricity use efficiency and more effective pork production. In addition, the piggery would be unable to expand and increase its output. Thus the pork producer would not derive increased profit required to remain competitive in the pork production industry.

The current status quo will remain. The number of pigs on the property will not be increased. The number of buildings on the property will not be altered and the type of technology utilised will remain the same.

An opportunity to improve the local socio-economic situation will have been lost.

The welfare of pigs will not be improved through the utilisation of modern designs and management, and operation will fail to comply with the new Animal well-fair requirements.

Odour and pest problems associated with the existing piggery will not be improved.

Water use efficiency within the existing piggery will not be improved.

The piggery is located in a high potential agricultural area, with potential for increased intensive agricultural production. Should the no-go option be implemented, the piggery will remain at its current capacity in terms of pork production, and the positive socio-economic impacts, such as, job creation and skills transfer would not be realised. In addition, the resilience and sustainability of the operation will reduce (if pig numbers cannot be increased), as efficiencies will decrease and economies of scale make the operation non-viable. This will result in job losses and associated deterioration in local livelihoods.

The environmental impacts associated with the proposed development are of an acceptable nature and are easily managed through the implementation of the mitigation measures contained in the EMPr.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

As demonstrated, the proposed site is well positioned and the activities proposed are in keeping with the future planned sense of place. The piggery is an existing operation and does not contain any fauna and flora of conservation importance. Provided that the management controls indicated in this report are robustly applied, then the probability of any negative environmental impacts occurring are extremely minimal. The authorisation of the proposed piggery expansion will address socio-economic issues such as job creation, skills transfer, increased need for pork production; identified as priority issues in the MCLM IDP.

There are no benefits associated with the No-Go option, and the environmental impacts associated with the proposed development are of an acceptable nature and are easily managed through the implementation of the mitigation measures contained in the EMPr.

For alternative:

N/A

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.

See above.

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

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:

Environmental Management Programme (EMPr)

- **The Applicant and Contractors must sign that they have read and understood the EMPr.**

Environmental Control Officer (ECO)

- **An Independent Environmental Control Officer (ECO) must be appointed.**
- **The ECO is responsible for the implementation of the EMPr during the Construction Phase.**
- **Areas must be protected against erosion by soil stabilization mechanisms, such as cladding or netting. These mechanisms will facilitate the establishment of vegetation.**
- **Exposed surfaces, which are vulnerable to wind erosion, must be compacted by spraying water to prevent dispersion.**
- **No work must be carried out during windy, dry conditions and re-vegetated plants are to be covered to prevent severe weather conditions.**
- **Dust suppression measures (e.g. water spraying) must be incorporated on all construction activities and vehicle access routes.**
- **All construction vehicles and machinery must be maintained in order to reduce emissions.**
- **Waste should be recycled or donated to the community where possible. If not, waste must be stored in suitable waste receptacles before being disposed of at a registered landfill site.**
- **A site specific stormwater drainage system must be implemented (refer to the EMPr).**
- **The excavated material from the site must be stockpiled at a designated location within the development site, and protected from erosion.**
- **Alien vegetation must be cleared before and after construction, and regular alien vegetation clearing will take place during operation.**
- **Re-vegetation must be carried out as part of the construction site rehabilitation**

plan.

- The re-vegetation process must only use indigenous plants, native to the area.
- Fire breakers must be maintained around the perimeter of the development footprint in accordance with the National Veld and Forest Fire Act (Act 101 of 1998).
- Any subterranean cultural, archaeological, paleontological or historical resources unearthed during the construction phase must be immediately reported to the Gauteng Heritage Authority.
- All access routes and gravel roads must be maintained during the construction phase.
- If required, noise attenuation measures must be implemented to comply with the Gauteng Noise Regulations, for both the construction and operation phases. However the noise created by the proposed activity is not expected to be problematic.
- All personnel and contractors must undergo an induction before any construction activities begin. This induction will emphasize security, discipline, occupational health and safety, and fire prevention.
- Any unlawful activities by contractors or employees during the construction phase of the project must be strictly dealt with in accordance with the contractual agreement.
- No cement or concrete mixing must take place on the soil surface. Cement mixers must be placed on large trays to prevent accidental spills from coming into contact with the soil surface.
- Cement or concrete residue on vehicles must not be washed-off into the stormwater system on site.
- Effluent disposal system must be regularly monitored and maintained.
- Applicant must pay particular attention to clean/dirty water separation whereby all clean water is kept away from all dirty water or contaminated water streams.
- Soakaway area must be well monitored on a regular basis to ensure that their percolation efficiency is not compromised. Further, it must be ensured that the septic tanks are monitored and, if necessary, pumped out before they get over full.
- Pharmaceuticals and chemicals must be used in the recommended quantities and manner, and must be stored in a secure, dry room and mixed in a designated area on an impermeable surface inside a dry room where spillages can be easily contained.
- It must be ensured that the piggery houses are well protected from the entry of runoff and direct rainfall; it must be ensured as far as possible that flushing activities do not take place when meteorological conditions are favourable for carrying odour to vulnerable receptors.
- Workers must strictly adhere to the hygiene and health protocols outlined in the South African Pork Producer Organisation (SAPPO) and the Directorate of Animal Health's Minimum Bio-Security Measures Compartment Checklist. It must be ensured that all staff are well trained to understand and strictly adhere to the concept of compartmentalisation.
- All workers must follow the Meat Safety Act Regulations closely in terms of the treatment of dead animals, ensuring that they are stored in a designated and secure bin and disposed of in a secure, registered burial site.
- Workers must be trained to use chemical products correctly and must know what to do in the event that chemicals are inadvertently ingested.
- In compliance with the Animal Health Act (Act 7 of 2002), any occurrence of notifiable and controlled diseases must be reported to the State Veterinarian and steps must be taken to address the problem. Disease management procedures must be developed and implemented according to the protocols outlined in the SAPPO and the Directorate of Animal Health's Minimum Bio-Security Measures Compartment Checklist, including regular cleaning and disinfection of piggery houses and daily removal and hygienic disposal of dead pigs.
- Applicant to develop and implement a public relations strategy including maintaining a complaints and responses register at the site office.
- Hygiene protocols and vermin control strategies outlined in the SAPPO and Directorate of Animal Health's Minimum Bio-Security Measures Compartment Checklist must be adhered to.

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; and
- All relevant sections of the form have been completed.