

## **DRAFT BASIC ASSESSMENT REPORT GONDO LOGISTICS CC**

**THE DEVELOPMENT OF A PIGGERY AND FUEL STORAGE ACTIVITIES ON HOLDING 230 AND 233,  
SYDNEY ROAD CNR 7<sup>TH</sup> AVENUE, VISCHKUIL, GAUTENG PROVINCE**

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

**DECEMBER 2020**

**Reference: TBD**

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## PROJECT INFORMATION

### DOCUMENT CONTROL

<b>Report</b>	Draft Basic Assessment Report for the Development of a Piggery and Fuel Storage Activities on Holding 230 and 233, Sydney Road Cnr 7 <sup>th</sup> Avenue, Vischkuil, Gauteng Province		
<b>Client</b>	Gondo Logistics CC		
<b>Responsible Person</b>	Mrs. Ngwanarachuene Esther Mampane westleighenvironmental@gmail.com Westleigh Environmental Services	Ronnie Veerasamy Applicant – Owner gondologistics@gmail.com	
<b>Report Number</b>	GL-BAR-REP-028_20	<b>Report Status</b>	Draft for PPP
		<b>Report Date</b>	February 2021

### DOCUMENT REVIEW

Responsible person	Date	Position	Responsibility	Signature
Liezl Landman Pr.Sci.Nat. (No. 118084)	2020/01/28	Environmental Consultant	Author	
DuToit Wilken Pr.Sci.Nat. (No. 118911)	2020/01/31	Director	Reviewer	
Corlien Lambrechts Pr.Sci.Nat. (No. 009135) EAPASA. (No. 2020-935)	2020/01/31	Senior EAP	Sign-off	

### DISCLAIMER

*This document has been prepared by Elemental Sustainability with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it in accordance with the appointment from the applicant.*

*In addition, this report has been compiled in line with the requirements of the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA) and EIA regulations (2014), as amended. Information reported herein may be based on the interpretation of public domain data collected by Elemental Sustainability (Pty) Ltd, and/or information supplied by the applicant and/or its other advisors and associates. The data has been accepted in good faith as being accurate and valid. This document may contain information of a specialised and/or highly technical nature and the reader is advised to seek clarification on any elements which may be unclear to it.*

### REPORT CITATION:

Elemental-S (2020). Draft Basic Assessment Report for the Proposed Gondo Logistics CC Development of a Piggery and Fuel Storage Activities on Holding 230 and 233, Sydney Road Cnr 7<sup>th</sup> Avenue, Vischkuil, Gauteng Province .

## ENVIRONMENTAL ASSESSMENT PRACTITIONER

<b>Name of the Practitioner:</b>	Liezl Landman	DuToit Wilken
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NAME:	QUALIFICATION & EXPERTISE
<p><b>Liezl Landman</b> Project Manager</p>	<ul style="list-style-type: none"> <li>• M.Sc. Environmental Ecology, University of Pretoria, submitted 2020 – Pending Results</li> <li>• Pr.Sci.Nat. (118084)</li> <li>• 5+ years' experience in the environmental management field</li> </ul> <p><b>Liezl Landman</b> is an Ecological Specialist and Environmental Consultant with more than five years of experience in the field of environmental management. Her core experience and expertise are in the mining and industrial sectors, focusing on Ecological and Biodiversity Assessments, both Terrestrial and Aquatic, along with Wetland Delineation and Functionality Assessments, Visual Impact Assessments, Water and Air Quality Assessments, GIS Mapping and SASS 5 Aquatic Biomonitoring.</p> <p>She has proven competence in environmental legal compliance audits (WUL, WML, EA/ROD and AEL), and EMPr Performance Assessments for various industrial and mining works. And completed several Basic Assessments (BAs), Water Use Licence Applications (WULAs), Public Participation Processes (PPPs), Air Emission Licence Applications, and have experience with the current e-WULAA online Water Use Licence Application platform.</p> <p>Liezl is registered as a professional scientist in the field of ecological science and environmental science with SACNASP and a member of the IAIAAsa.</p>
<p><b>DuToit Wilken</b> Project Reviewer</p>	<ul style="list-style-type: none"> <li>• M.Sc. University of Pretoria,</li> <li>• Pr.Sci.Nat. (118911)</li> <li>• 10+ years' experience in the environmental management field</li> </ul> <p><b>DuToit Wilken</b> is an Environmental Scientist with more than 10 years of experience in applying the principles of Integrated Environmental Management, and in applying the Environmental Legislation to a number of development projects and initiatives in Southern Africa. He is registered as a Pr.Sci.Nat. (SACNASP), Natural Scientist, Registration number 118911. He has co-ordinated and managed number of diverse projects and programs related to the Environment and Mining within both the public and private sectors and for national, multi-national and international companies. His interpersonal and organisational skills have enabled him to efficiently direct these projects from initiation to implementation.</p> <p>A significant element of public participation is required throughout the life cycle of an EIA process. DuToit has successfully liaised with interested and affected parties, ensuring that all communication procedures and dialogues are open and transparent, and that capacity building is conducted where necessary. His proficient report-writing skills have been utilised for the compilation of a wide variety of reports, which include but is not limited to Basic Assessment Reports, Scoping and Environmental Impact Assessment Reports, Environmental Management Plans (Planning, Construction,</p>

Operation and Closure), Environmental Audit Reports, Opportunities and Constraints Analyses, Waste License Applications, Water-Use Application Reports and Mining Right Applications.

**Corlien Lambrechts**

Senior EAP

- B.Sc Hons – Zoology, University of Pretoria
- Pr.Sci.Nat. (No. 009135)
- EAPASA. (No. 2020-935)
- 8+ years' experience in the environmental management field

**Corlien Lambrechts** is an Environmental Scientist with 8 years of applicable experience in the relevant field of Environmental Management and has qualifications in Environmental Management and Zoology. She is a Professional Natural Scientist with the South African Council of Natural Scientific Professions (Pr.Sci.Nat: 009135) and has been registered and accredited by Environmental Assessment Practitioners Association of South Africa (EAPASA), Registration number: 2020/935.

After consulting for a number of years, she enrolled for her Honors degree in Zoology at the University of Pretoria in 2015 where she completed a project in the Cathedral Peak Drakensberg Mountain range studying differences in community structures of invertebrate species between natural grasslands and grasslands subjected to rehabilitation by South African Environmental Observation Network (SAEON) and in association with the University of Pretoria Centre of Invasion Biology (CIB). During her career within the Environmental management field, she has been involved in a wide variety of Ecological and Environmental applications and compilation of reports, which include as relevant to the compilation of this report: Basic Assessment Reports, Scoping and Environmental Impact Assessment Reports and Environmental Management Plans, Environmental Audit Reports, Water-Use Application Reports and Mining Right Applications.

## TABLE OF CONTENTS

<b>PROJECT INFORMATION</b> .....	<b>2</b>
<b>ENVIRONMENTAL ASSESSMENT PRACTITIONER</b> .....	<b>3</b>
<b>LIST OF FIGURES</b> .....	<b>6</b>
<b>LIST OF TABLES</b> .....	<b>7</b>
<b>ABBREVIATIONS</b> .....	<b>7</b>
<b>SECTION A: ACTIVITY INFORMATION</b> .....	<b>14</b>
A1. Proposal or Development Description .....	14
A2. Applicable Legislation, Policies And/Or Guidelines.....	14
A3. Alternatives .....	22
A4. Physical Size Of The Activity .....	27
A5. Site Access .....	28
A6. Layout or Route Plan .....	28
A7. Site Photographs .....	29
A8. Facility Illustration .....	31
<b>SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT</b> .....	<b>35</b>
B1. Property Description .....	35
B2. Activity Position.....	35
B3. Gradient Of The Site.....	36
B4. Location In Landscape.....	36
B5. Groundwater, Soil And Geological Stability Of The Site .....	36
B6. Agriculture.....	38
B7. Groundcover .....	39
B8. Land Use Character Of Surrounding Area.....	40
B9. Socio-Economic Context.....	43
B10. Cultural/Historical Features.....	44
<b>SECTION C: PUBLIC PARTICIPATION (SECTION 41)</b> .....	<b>47</b>
C1. The Environmental Assessment Practitioner Must Conduct Public Participation Process In Accordance With The Requirement Of The EIA Regulations, 2014.....	47
C2. Local Authority Participation .....	47
C3. Consultation With Other Stakeholders.....	47
C4. General Public Participation Requirements .....	48
C5. Appendices For Public Participation .....	48
<b>SECTION D: RESOURCE USE AND PROCESS DETAILS</b> .....	<b>49</b>
D1. Waste, Effluent, And Emission Management.....	49
D2. Water Use.....	51
D3. Power Supply .....	52
D4. Energy Efficiency.....	52
<b>SECTION E: IMPACT ASSESSMENT</b> .....	<b>53</b>
E1. Issues Raised By Interested And Affected Parties.....	53
E2. Impacts That May Result From The Construction And Operational Phase.....	53
E3. Impacts That May Result From The Decommissioning And Closure Phase.....	76
E4. Cumulative Impacts .....	77
E5. Environmental Impact Statement.....	77
E6. Impact Summary Of The Proposal Or Preferred Alternative.....	78
E7. Spatial Development Tools.....	79

E8. Recommendation Of The Practitioner.....	84
E9. The Needs And Desirability Of The Proposed Development.....	85
E10. The Period For Which The Environmental Authorisation Is Required.....	98
E11. Environmental Management Programme (EMPR).....	98
<b>SECTION F: APPENDIXES.....</b>	<b>99</b>
<b>APPENDIX A: SITE PLAN(S).....</b>	<b>100</b>
<b>APPENDIX B: PHOTOGRAPHS.....</b>	<b>101</b>
<b>APPENDIX C: FACILITY ILLUSTRATION(S).....</b>	<b>102</b>
<b>APPENDIX D: ROUTE POSITION INFORMATION.....</b>	<b>103</b>
<b>APPENDIX E: PUBLIC PARTICIPATION INFORMATION.....</b>	<b>104</b>
<b>APPENDIX E1: PROOF OF SITE NOTICE.....</b>	<b>105</b>
<b>APPENDIX E2: WRITTEN NOTICES ISSUED AS REQUIRED IN TERMS OF THE REGULATIONS.....</b>	<b>106</b>
<b>APPENDIX E3: PROOF OF NEWSPAPER ADVERTISEMENTS.....</b>	<b>107</b>
<b>APPENDIX E4: COMMUNICATIONS TO AND FROM INTERESTED AND AFFECTED PARTIES.....</b>	<b>108</b>
<b>APPENDIX E5: MINUTES OF ANY PUBLIC AND/OR STAKEHOLDER MEETINGS.....</b>	<b>109</b>
<b>APPENDIX E6: COMMENTS AND RESPONSES REPORT.....</b>	<b>110</b>
<b>APPENDIX E7: COMMENTS FROM I&amp;APS ON BASIC ASSESSMENT (BA) REPORT.....</b>	<b>111</b>
<b>APPENDIX E8: COMMENTS FROM I&amp;APS ON AMENDMENTS TO THE BA REPORT.....</b>	<b>112</b>
<b>APPENDIX E9: COPY OF THE REGISTER OF I&amp;APS.....</b>	<b>113</b>
<b>APPENDIX F: WATER USE LICENSE(S) AUTHORISATION, SAHRA INFORMATION, SERVICE LETTERS FROM MUNICIPALITIES, WATER SUPPLY INFORMATION.....</b>	<b>114</b>
<b>APPENDIX G: SPECIALIST REPORTS.....</b>	<b>115</b>
<b>APPENDIX H: EMPR.....</b>	<b>116</b>
<b>APPENDIX I: OTHER INFORMATION.....</b>	<b>117</b>
<b>APPENDIX I1: EAP CURRICULUM VITAE.....</b>	<b>118</b>
<b>APPENDIX I2: DEA SCREENING TOOL REPORT.....</b>	<b>119</b>

## LIST OF FIGURES

Figure 1: Site location of the preferred alternative (proposal).....	25
Figure 2: Site layout of the preferred alternative (proposal).....	26
Figure 3: Current pig cages.....	30
Figure 4: Runoff surface water on site.....	30
Figure 5: The property targeted for future pig pens.....	30
Figure 6: The property targeted for future pig pens.....	30
Figure 7: The property area targeted for fuel storage.....	30
Figure 8: The property targeted for fuel storage.....	30
Figure 9: Southern neighbouring property.....	30
Figure 10: Eastern neighbouring property.....	30
Figure 11: Northern neighbouring property.....	31
Figure 12: Northern section of the proposed property.....	31
Figure 13: Preferred Option of the Proposed Fuel Depot Facility Illustration and Site Layout.....	31
Figure 14: Alternative Option of the Proposed Fuel Depot Facility Illustration.....	32
Figure 15: 50-Sow Breeder and Weaner Structural Detail.....	33

Figure 16: 50-Sow Breeder & Weaner House Section CC.....	33
Figure 17: 50 Sow Breeder & Weaner House Section DD.....	34
Figure 18: 50-Sow Grower House Section EE.....	34
Figure 19: Map of Relative Agriculture Sensitivity according to the DEA Screening Tool.....	39
Figure 20: Regional municipalities of the Gauteng area.....	80
Figure 21: Gauteng Environmental Management Framework.....	82

## LIST OF TABLES

Table 1: Applicable Legislation.....	14
Table 2: Description of compliance with the relevant legislation.....	15
Table 3: Listed Activities.....	22
Table 4: Alternatives.....	23
Table 5: Alternative Motivation.....	27
Table 6: A summary of the on-site wetland conditions present.....	43
Table 7: Summary of Ward 12's Socio-economic demographic.....	44
Table 8: Construction related impacts associated with the proposed development of a piggery and fuel depot facility for Gondo Logistics.....	57
Table 9: Operational related impacts associated with the proposed development of a piggery and fuel depot facility for Gondo Logistics.....	67
Table 10: Transformation, Modernisation and Re-industrialisation Interventions and Projects.....	80
Table 11: Selected immediate priority projects of the MSDF.....	83
Table 12: Need and Desirability of the proposed development in terms of the Department of Environmental Affairs (DEA) Guideline on Need and Desirability (2017).....	87

## ABBREVIATIONS

<b>BA</b>	Basic Assessment
<b>BAR</b>	Basic Assessment Report
<b>DAFF</b>	Department of Agriculture, Forestry and Fisheries
<b>DEA</b>	Department of Environmental Affairs
<b>DEFF</b>	Department of Environment, Forestry and Fisheries
<b>DHSWS</b>	Department of Human Settlements, Water and Sanitation
<b>DWS</b>	Department of Water and Sanitation
<b>EAP</b>	Environmental Assessment Practitioner
<b>EIA</b>	Environmental Impact Assessment
<b>EMPr</b>	Environmental Management Programme
<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development
<b>HIA</b>	Heritage Impact Assessment
<b>I&amp;APs</b>	Interested and Affected Parties
<b>IDP</b>	Integrated Development Plan
<b>NEMA</b>	National Environmental Management Act, Act No. 107 of 1998

<b>NEM:WA</b>	National Environmental Management: Waste Act, Act No. 59 of 2008
<b>NHRA</b>	National Heritage Resources Act, Act No. 25 of 1999
<b>NWA</b>	National Water Act, Act No. 36 of 1998
<b>SAHRA</b>	South African Heritage Resources Agency
<b>SAHRIS</b>	South African Heritage Resources Information System
<b>SAPPO</b>	South African Pork Producers' Organisation
<b>SDF</b>	Spatial Development Framework
<b>WUL</b>	Water Use Licence
<b>WULA</b>	Water Use Licence Application



**REQUIREMENTS ACCORDING TO APPENDIX 1 OF GNR 326 OF 4 DECEMBER 2014 (AS AMENDED APRIL 2017) – SCOPE OF ASSESSMENT AND CONTENT OF BAR:**

SCOPE OF ASSESSMENT AND CONTENT OF BAR		SECTION IN BAR
1)	A basic assessment report must contain all the information that is necessary for the competent authority to consider and come to a decision on the application, and must include –	Page 3 Appendix I
	(a) details of -	
	i. the EAP who prepared the report; and	
	ii. the expertise of the EAP, including a curriculum vitae;	
	(b) the location of the activity, including:	Section B Appendix A
	i. the 21-digit Surveyor General code of each cadastral land parcel;	
	ii. where available, the physical address and farm name;	
	iii. (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	
	(c) a plan which locates the proposed activity or activities applied for as well as associated structures and infrastructure at an appropriate scale; or, if it is –	Appendix A
	i. a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or	
	ii. on land where the property has not been defined, the coordinates within which the activity is to be undertaken;	
	(d) a description of the scope of the proposed activity, including –	Section A
	i. all listed and specified activities triggered and being applied for; and	
	ii. a description of the activities to be undertaken including associated structures and infrastructure;	
	(e) a description of the policy and legislative context within which the development is proposed including –	Section A2 Section E7
	i. an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and	
	ii. how the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments;	
	(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	Section A3 Section B9 Section E9
	(g) a motivation for the preferred site, activity and technology alternative;	Section A4
	(h) a full description of the process followed to reach the proposed preferred alternative within the site, including:	Section A4
	i. details of all the alternatives considered;	Appendix E
	ii. details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section B
	iii. a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	Appendix G
	iv. the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section E Appendix F

<ul style="list-style-type: none"> <li>v. the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts- <ul style="list-style-type: none"> <li>aa) can be reversed</li> <li>bb) may cause irreplaceable loss of resources; and</li> <li>cc) can be avoided, managed or mitigated;</li> </ul> </li> <li>vi. the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;</li> <li>vii. positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</li> <li>viii. the possible mitigation measures that could be applied and level of residual risk;</li> <li>ix. the outcome of the site selection matrix;</li> <li>x. if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and (xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;</li> </ul>	
<p>(i) a full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including -</p> <ul style="list-style-type: none"> <li>i. a description of all environmental issues and risks that were identified during the environmental impact assessment process; and</li> <li>ii. an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures;</li> </ul>	<p>Section E Appendix G Appendix H</p>
<p>(j) an assessment of each identified potentially significant impact and risk, including -</p> <ul style="list-style-type: none"> <li>i. cumulative impacts;</li> <li>ii. the nature, significance and consequences of the impact and risk;</li> <li>iii. the extent and duration of the impact and risk;</li> <li>iv. the probability of the impact and risk occurring;</li> <li>v. the degree to which the impact and risk can be reversed;</li> <li>vi. the degree to which the impact and risk may cause irreplaceable loss of resources; and</li> <li>vii. the degree to which the impact and risk can be avoided, managed or mitigated;</li> </ul>	<p>Section E Appendix G</p>
<p>(k) where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included in the final report;</p>	<p>Appendix H</p>
<p>(l) an environmental impact statement which contains -</p> <ul style="list-style-type: none"> <li>i. a summary of the key findings of the environmental impact assessment;</li> <li>ii. a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and</li> <li>iii. a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;</li> </ul>	<p>Section E Appendix A Appendix G</p>

(m) based on the assessment, and where applicable, impact management measures from specialist reports, the recording of the proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr;	Section E Appendix G Appendix H
(n) any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation;	Appendix G
(o) a description of any assumptions, uncertainties, and gaps in knowledge which relate to the assessment and mitigation measures proposed;	Section E Appendix G
(p) a reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;	Section E8 Appendix G
(q) where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised;	N/A
(r) an undertaking under oath or affirmation by the EAP in relation to: <ul style="list-style-type: none"> <li>i. the correctness of the information provided in the reports;</li> <li>ii. the inclusion of comments and inputs from stakeholders and I&amp;APs;</li> <li>iii. the inclusion of inputs and recommendations from the specialist reports where relevant; and</li> <li>iv. any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties;</li> </ul>	Appendix I Section C Appendix E
(s) where applicable, details of any financial provisions for the rehabilitation, closure, and ongoing post decommissioning management of negative environmental impacts;	N/A
(t) any specific information that may be required by the competent authority; and	N/A
(u) any other matters required in terms of section 24(4)(a) and (b) of the Act.	N/A

**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, 2014 (Version 1)**

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**Kindly note that:**

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. 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, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**
4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. 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.
6. 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.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.**
10. 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 application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. 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.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

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**DEPARTMENTAL DETAILS**

Gauteng Department of Agriculture and Rural Development  
Attention: Administrative Unit of the of the Environmental Affairs Branch  
P.O. Box 8769  
Johannesburg  
2000

Administrative Unit of the of the Environmental Affairs Branch  
Ground floor Diamond Building  
11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377  
Department central telephone number: (011) 240 2500

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(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

**N/A**

**The submission of the Basic Assessment Report (BAR) to the Competent Authority is within the 90 days from submission of the Application.**

Is a closure plan applicable for this application and has it been included in this report?

**NO**

if not, state reasons for not including the closure plan.

**This application is for the development of a piggery and fuel storage area, which will exist for the foreseeable future. Should the Applicant decide to close the facility, an application for closure and decommissioning will be submitted to the Competent Authority**

Has a draft report for this application been submitted to a competent authority and 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 the State Departments referred to above attached to this report including their full contact details and contact person?

**YES**

If no, state reasons for not attaching the list.

**N/A**

Have State Departments including the competent authority commented?

**NO**

If no, why?

**This is a Draft BA Report and is currently being released for a 30-day review period. Following the review period any comments received from State Departments (including the Competent Authority) will be incorporated into the Final BA Report which will be submitted to Gauteng Department of Agriculture and Rural Development for decision-making. An application for EA as well as the relevant public participation actions (i.e. newspaper advertisement) accompany the release of this Draft BA Report.**

## SECTION A: ACTIVITY INFORMATION

### A1. PROPOSAL OR DEVELOPMENT DESCRIPTION

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

**Basic Assessment Report for the Development of a Piggery and Fuel Storage Activities on Holding 230 and 233, Sydney Road Cnr 7<sup>th</sup> Avenue, Vischkuil, Gauteng Province.**

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

### A2. 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:

**Table 1: Applicable Legislation**

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of South Africa, 1996 (Act No. 108 of 1996) [as amended]	National	18 December 1996
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	27 November 1998
NEMA Environmental Impact Assessment Regulations as amended, GNR 326	National & Provincial	7 April 2017
NEMA Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the NEMA, 1998, when applying for environmental authorisation, GNR 320	National & Provincial	20 March 2020
National Water Act, 1998 (Act No. 36 of 1998) as amended	National & Provincial	26 August 1998
National Environmental Management Waste Act, 2009 (Act No. 59 of 2008)	National & Provincial	10 March 2009
National Environmental Management Waste Act GNR 921	National & Provincial	29 November 2013
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)	National & Provincial	7 June 2204
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	National & Provincial	28 April 1999
National Development Plan: A Vision for 2030	National	19 February 2013
Department of Environmental Affairs Guidelines on Public Participation	National & Provincial	10 October 2012
National Health Act, 2003 (Act No.61 of 2003)	National & Provincial	23 July 2004
Animal Health Act, 2002 (Act No. 7 of 2002)	National	30 July 2002
Spatial Planning Land Use Management Act, 2013 (Act No. 16 of 2013)	National	6 August 2013
Gauteng Provincial Environmental Framework, 2014	Provincial	November 2014

**Table 2: Description of compliance with the relevant legislation**

Description of compliance with the relevant legislation, policy or guideline:	
Legislation, policy of guideline	Description of compliance
<p>Constitution of South Africa, 1996 (Act No. 108 of 1996) [as amended]</p> <p>Section 24</p> <p>Environment: Everyone has the right-</p> <ul style="list-style-type: none"> <li>(a) to an environment that is not harmful to their health or well-being; and</li> <li>(b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that-</li> <li>(I) prevent pollution and ecological degradation;</li> <li>(II) promote conservation; and</li> </ul> <p>Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.</p>	<p>The proposed development has the potential to harm the environment and poses a risk to the health and wellbeing of people. The proposed development, however, also has the potential to secure sustainable development through reusing process products and thereby limiting the use of natural resources.</p> <p>The Applicant has the overall responsibility to ensure that the rights of people in terms of Section 24 of the Constitution are protected in terms of the proposed development activity.</p>
<p>National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).</p> <ul style="list-style-type: none"> <li>• Section 28 (1)</li> </ul> <p><i>Duty of Care and responsibilities to minimise and remediate environmental degradation.</i></p>	<p>The Applicant is the developer and overall responsibility of the development rests with him, especially in terms of liabilities associated with the operational phase.</p> <p>The Environmental Authorisation for the proposed development is lawfully applied for in terms of the EIA Regulations, 2014 (as amended in 2017), promulgated under NEMA. The conditions on the Environmental Authorisation, if approved, will be adhered to.</p>
<p>GNR 326 of NEMA EIA Regulations, 7 April 2017</p>	<p>To promote integrated environmental management, contents of this BAR adhere to the requirements of the EIA Regulations. Appendix H includes the Environmental Management Programme that the project will adhere to if authorisation is received.</p> <p>All the triggered activities as per National Environmental Management Act (Act No. 107 of 1998) have been listed in this document.</p>
<p>EIA Regulations, 2014 (Government Notices 982 - 984) (as amended) by GNR 324 – 327 in 2017.</p> <p><i>Chapter 6: Regulation 39 to 44: Public Participation;</i>  <i>Chapter 4: Application for Environmental Authorisation:</i>  <i>Part 2 Basic Assessment</i>  <i>Appendix 1: Basic Assessment Report</i>  <i>Appendix 4: Environmental Management Programme</i>  <i>Appendix 5: Closure Plan</i>  <i>Appendix 6: Specialist Reports</i></p>	<p>The EIA Regulations, 2014 [as amended] prescribes inter alia:</p> <p>The manner in which public participation needs to be conducted as well as the requirements of a basic assessment process and the content of a basic assessment report and environmental management programme.</p> <p>The content of specialist reports is also provided.</p>
<p>National Heritage Resources Act, 1999 (Act No. 25 of 1999)</p> <ul style="list-style-type: none"> <li>• Section 44 (1);</li> </ul> <p><i>Preservation and protection of heritage resources;</i></p>	<p>The proposed project has been submitted to the South African Heritage Resources Agency (SAHRA) online platform South African Heritage Resources Information System (SAHRIS).</p> <p>Protection of indigenous heritage resources on the property.</p>

<ul style="list-style-type: none"> <li>Section 3 Types and ranges of heritage resources (i) (i);</li> </ul> <p>Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens.</p>	<p>A specialist heritage investigation was conducted for the proposed site, however, no heritage aspects were found to occur on-site.</p>
<p>National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)</p> <ul style="list-style-type: none"> <li>Section 9</li> </ul> <p>Norms and standards</p> <ul style="list-style-type: none"> <li>Section 27</li> </ul> <p>Delegation of power and duties</p> <ul style="list-style-type: none"> <li>Section 30</li> </ul> <p>Financial accountability</p> <ul style="list-style-type: none"> <li>Section 43</li> </ul> <p>Biodiversity management plans.</p>	<p>The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004) as amended (NEMBA) including all the pertinent legislation published in terms of this act was considered in undertaking this Basic Assessment process. This included the determination and assessment of the fauna and flora prevailing in the proposed project and the handling thereof in terms of NEMBA.</p> <p>Indigenous vegetation needs to be protected and managed in accordance with management measures set out in the management plans.</p> <p>A specialist ecological scan and wetland assessment has been conducted for the project area; no Indigenous vegetation is present on the area.</p>
<p>National Environmental Management Waste Act, 2008 (Act No. 59 of 2008)</p>	<p>The Waste Management practices will be undertaken in respect of the National Environmental Management: Waste Act (Regulations published in GNR 921 on the 29 November 2013 Government Gazette No 37083) as amended NEM:WA.</p> <p>Pieces of legislation published under this act will be adhered to.</p>
<p>National Water Act, 1998 (Act 36 of 1998)</p>	<p>An application for the determination of the need for a Water Use Licence Application (WULA) is being lodged.</p>
<p>National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)</p>	<p>Impacts on surrounding landowners need to be managed through dust mitigation measures during construction of the fuel depot and piggery.</p> <p>No significant air quality impacts are expected as a result of the fuel depot and piggery.</p>
<p>National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) [as amended]</p> <p>In terms of section 21 of the NEM:AQA a list of scheduled processes was published in GNR893 (November 2013).</p>	<p>Impacts on surrounding landowners need to be managed through dust mitigation measures during construction of the fuel depot and piggery.</p> <p>No significant air quality impacts are expected as a result of the fuel depot and piggery.</p>
<p>Veld and Forest Fire Act, 1998 (Act No. 101 of 1998) [as amended]</p> <ul style="list-style-type: none"> <li>Section 12 (1)</li> </ul> <p>Duty of the landowner to prevent fire from spreading to neighbouring properties.</p>	<p>Cautionary steps in avoiding the spread of fires to and from neighbouring properties. This will specifically be important for a fuel depot where flammable products are being used and stored. All storage facilities need to comply with SABS standards.</p>
<p>Alien and Invasive Species Regulations (Government Notice 598 of 2014) and Alien and Invasive Species List,</p>	<p>It is the responsibility of the Applicant to ensure that all prohibited plant and animal species are eradicated as far as possible.</p>



<p>2014 in terms of NEMBA (Government Notice 599 of 2014)</p> <ul style="list-style-type: none"> <li>• Notice 2</li> </ul> <p><i>Exempted Alien Species in terms of Section 66 (1)</i></p> <ul style="list-style-type: none"> <li>• Notice 3</li> </ul> <p><i>National Lists of Invasive Species in terms of Section 70(1) – List 1, 3-9 &amp; 11</i></p> <ul style="list-style-type: none"> <li>• Notice 4</li> </ul> <p><i>Prohibited Alien Species in terms of Section 67 (1) – List 1, 3-7, 9-10 &amp; 12</i></p>	<p>A specialist ecological scan and wetland assessment has been conducted for the project area; no Indigenous vegetation is present on the area.</p>
<p>Conservation of Agricultural Resources Act (no. 43 of 1983)</p> <ul style="list-style-type: none"> <li>• Section 5: Prohibition of spreading of weeds</li> <li>• Section 12: Maintenance of soil conservation works and maintenance of certain states of affairs</li> </ul> <p>Section 16: Regional Conservation Committees</p>	<p>Listed invader/alien plants occurring on site which requires management measures to be implemented.</p>
<p>Hazardous Substances Act, 1973 (Act 15 of 1973) [as amended]</p> <ul style="list-style-type: none"> <li>• Section 2: Declaration of grouped hazardous substances;</li> <li>• Section 4: Licensing;</li> <li>• Section 16: Liability of employer or principle</li> <li>• Section 9 (1): Storage and handling of hazardous chemical substances;</li> <li>• Section 18: Offences</li> </ul>	<p>The Applicant must ensure the safety of people working with hazardous chemicals (specifically fuels), as well as safe storage, use and disposal of containers during the on-site operational phase together with the associated liability should non-compliance be at the order of the day.</p>
<p>National Dust Control Regulations, 2013 (Government Notice 827 of 2013)</p> <ul style="list-style-type: none"> <li>• Section 3</li> </ul> <p><i>Dust fall standard</i></p> <ul style="list-style-type: none"> <li>• Section 4</li> </ul> <p><i>Dust fall monitoring program</i></p> <ul style="list-style-type: none"> <li>• Section 6</li> </ul> <p><i>Measures for control of dust</i></p> <ul style="list-style-type: none"> <li>• Section 7</li> </ul> <p><i>Ambient air quality monitoring (PM<sub>10</sub>)</i></p> <ul style="list-style-type: none"> <li>• Section 8</li> </ul> <p><i>Offences</i></p> <ul style="list-style-type: none"> <li>• Section 9</li> </ul> <p><i>Penalties</i></p>	<p>Dust needs to be mitigated during the construction of the fuel depot and piggery, which may influence employees and surrounding landowners. Dust generation during construction is expected to be minimal.</p> <p>No significant air quality impacts are expected as a result of the fuel depot and piggery.</p>

<p>National Ambient Air Quality Standard (NAAQS) (29 June 2012 (No. 35463)).</p>	<p>Standard for ambient air quality in South Africa. Monitoring requirements, limits and standards.</p> <p>No significant air quality impacts are expected as a result of the fuel depot and piggery.</p>
<p>SANS 1929: Ambient Air Quality – Limits for Common Pollutants</p> <p>SANS 1137: Standard test method for the collection and measurement of dust fall (settleable particulate matter).</p> <p>ASTM d 1739, 1970 or equivalent approved protocol for dust monitoring.</p>	<p>Impacts on surrounding landowners need to be managed through dust mitigation measures during construction of the fuel depot and piggery.</p> <p>No significant air quality impacts are expected as a result of the fuel depot and piggery.</p>
<p>National Development Plan: A Vision for 2030</p>	<p>The South African Government through the Presidency has published a National Development Plan. The Plan aims to eliminate poverty and reduce inequality by 2030. The Plan has the target of developing people's capabilities to be to improve their lives through education and skills development, health care, better access to public transport, jobs, social protection, rising income, housing and basic services, and safety. It proposes the following strategies to address the above goals:</p> <ol style="list-style-type: none"> <li>1. Creating jobs and improving livelihoods;</li> <li>2. Expanding infrastructure;</li> <li>3. Transition to a low-carbon economy;</li> <li>4. Transforming urban and rural spaces;</li> <li>5. Improving education and training;</li> <li>6. Providing quality health care;</li> <li>7. Fighting corruption and enhancing accountability;</li> <li>8. Transforming society and uniting the nation.</li> </ol>
<p>National Health Act, 2003 (Act No.61 of 2003)</p>	<p>The pigs will be housed in a secure facility and kept in a healthy state.</p>
<p>Animal Health Act, 2002 (Act No. 7 of 2002)</p>	<p>The proposed project always aims to prevent the spread of diseases resulting from the piggery. Mitigation measures have been included in the EMPr (included as Appendix H) that the project will adhere to prevent the spread of diseases.</p>
<p>Public Participation guideline in terms of NEMA EIA Regulations, Department of Environmental Affairs, 2017</p>	<p>This guideline has informed the public participation process for the project.</p>
<p>Hazardous Chemical Substances Regulations, 1995 (Government Notice 1179 of 1995)</p> <ul style="list-style-type: none"> <li>• <i>Section 4: Duties of persons who may be exposed to hazardous chemical substances</i></li> <li><i>Section 9A (1): Penalties</i></li> </ul>	<p>No Hazardous substances will be stored on the site.</p>
<ul style="list-style-type: none"> <li>• Relevant South African National Standards: <ul style="list-style-type: none"> <li>○ <b>SANS 10089 – Part 1:</b> Storage and distribution of petroleum products in above-ground bulk installations;</li> </ul> </li> </ul>	<p>Adherence to all necessary standards to ensure safety and minimal risk of development.</p>

<ul style="list-style-type: none"> <li>○ <b>SANS 10089 – Part 3:</b> The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations;</li> <li>○ <b>SANS 10400:</b> The application of National Building Regulations;</li> <li>○ <b>SANS 1535:</b> Glass reinforced polyester-coated steel tanks for the underground storage of hydrocarbons and oxygenated solvents and intended for burial horizontally;</li> <li>○ <b>SANS 10108:</b> The classification of hazardous locations and the selection of apparatus for use in such locations;</li> <li>○ <b>SANS 5667:</b> Water quality</li> <li>○ <b>SANS 10103:</b> The measurement and rating of environmental noise with respect to annoyance and to speech communication</li> </ul>	
<p>SANS 10228:2006 The Identification and Classification of Dangerous Goods for Transport</p>	<p>All dangerous goods to be transported to and from the site need to be managed according to these standards.</p>
<p>National Development Plan 2030 (2012)</p>	<p>Land use planning.</p>
<p>National Strategy for Sustainable Development and Action Plan 2011 – 2014 (NSSD 1) (2011)</p>	<p>Land use planning.</p>
<p>Development Guidelines for Ridges (GDARD)</p>	<p>Ridges have been identified and delineated within the Gauteng Province by GDARD. No identified ridges are location on the area.</p>
<p>Gauteng Conservation Plan: Version 3.3</p>	<p>Identifies Critical Biodiversity Areas, Ecological Support Areas, and irreplaceable, protected, and important areas. Planning Tool utilised during the Terrestrial Ecology desktop assessment. The data as presented in the plan was verified during the field assessment. No areas of importance have been identified by the specialist.</p>
<p>Gauteng Department of Agriculture and Rural Development (GDARD) Minimum Requirements for Biodiversity Assessments (2014).</p>	<p>The biodiversity assessment undertaken was completed in terms of the requirements.</p>
<p>National Spatial Development Perspectives (NSDP)</p>	<p>The NSDP (2006) provides a framework for a focused intervention by the State in equitable and sustainable development. It represents a key instrument in the State’s drive towards ensuring greater economic growth, buoyant and sustained job creation and the eradication of poverty. It provides:</p> <ul style="list-style-type: none"> <li>• a set of principles and mechanisms for guiding infrastructure investment and development decisions;</li> <li>• description of the spatial manifestations of the main social, economic and environmental trends that should form the basis for a shared understanding of the national space economy; and</li> </ul>

	<ul style="list-style-type: none"> <li>• an interpretation of the spatial realities and the implications for government intervention.</li> </ul> <p>The project has taken municipal-level spatial planning into account where possible.</p>
New Growth Path (2010)	<p>South Africa has embarked on a new economic growth path in a bid to create 5 million jobs and reduce unemployment from 25% to 15% over the next ten (10) years. The plan aims to address unemployment, inequality and poverty by unlocking employment opportunities in South Africa's private sector and identifies seven job drivers. These job drivers have the responsibility to create jobs on a large scale. The seven key economic sectors or "job drivers" for job creation are listed below:</p> <ul style="list-style-type: none"> <li>• infrastructure development and extension: Public works and housing projects;</li> <li>• agricultural development with a focus on rural development and specifically</li> <li>• "Agro-Processing";</li> <li>• mining value chains;</li> <li>• manufacturing and industrial development (IPAP);</li> <li>• knowledge and green economy;</li> <li>• tourism and services; and</li> <li>• informal sector of economy.</li> </ul> <p>Employment opportunities, direct and in-direct will be provided by the proposed activity.</p>
National Framework for Sustainable Development (2008)	<p>The purpose of the National Framework on Sustainable Development is to enunciate South Africa's national vision for sustainable development and indicate strategic interventions to re-orientate South Africa's development path in a more sustainable direction. It proposes a national vision, principles and areas for strategic intervention that will enable and guide the development of the national strategy and action plan.</p>
National Spatial Development Perspective (2006)	<p>The NSDP 2006 provides a framework for a focused intervention by the State in equitable and sustainable development. It represents a key instrument in the State's drive towards ensuring greater economic growth, buoyant and sustained job creation and the eradication of poverty.</p> <p>Employment opportunities, direct and in-direct will be provided by the proposed activity.</p>
Gauteng 10-Pillar Programme of Transformation, Modernisation and Re-industrialisation	<p>The 10-Pillar Programme for the economic, social and spatial transformation of Gauteng, includes the two pillars most relevant to the project which are "decisive spatial transformation" and "modernisation of human settlements and urban development". To achieve radical and decisive spatial transformation will require key elements, including:</p> <ul style="list-style-type: none"> <li>• Transforming the Apartheid spatial economy and human settlement patterns to integrate economic opportunities, transport corridors and human settlements.</li> </ul>

	<ul style="list-style-type: none"> <li>• Revitalising and mainstreaming the township economy.</li> <li>• Enhancing the competitiveness of strategic economic sectors.</li> <li>• Significant investment in economic infrastructure.</li> </ul>
Gauteng Employment and Growth Strategy (GEGDS) (2009 to 2014)	<p>The strategy was formulated by the Department Economic Development. The strategy is based on innovation, green growth and an inclusive economy.</p> <ul style="list-style-type: none"> <li>• Increased economic equity and ownership: SMME development, access to quality education, support cooperatives, procurement support.</li> </ul> <p>The piggery and fuel depot will contribute to SMME development and provide employment opportunities, direct and in-direct.</p>
Sedibeng DM Spatial Development Framework	<p>The Sedibeng DM Spatial Development Framework states that the purpose of the designated agricultural land is to conserve the high potential agricultural areas and to promote food security. The SDF is clear that the supported land uses in the project area include agriculture, agricultural product beneficiation, agricultural schools, agro-processing, farmers market, commercial farming, and related activities.</p>
Gauteng Province Environmental Management Framework, 2014 (GPEMF) Zone 1	<p>The Gauteng Provincial Environmental Management Framework has been used to assist in the determination of land use zones and to guide sustainable land use management.</p> <p>The study area where the activity is proposed, is located within the Gauteng Province, within one of the Agricultural hubs as identified in the GPEMF. According to the Sedibeng Spatial Development Framework (SDF) (2014-2017), the district is one of the two major high potential agricultural areas in Gauteng, and this site falls within one of the identified 3 agricultural hubs in this district: the Lesedi Agri-hub.</p> <p>The area is located within Zone 1: Urban development zone, of the GPEMF. The intention with this zone is to streamline urban development activities in it and to promote development infill, densification and concentration of urban development, in order to establish a more effective and efficient city region that will minimise urban sprawl into rural areas.</p>
Guideline Manual for the Management of Abattoirs and Other Waste of Animal Origin (GDARD, 2009)	<p>Solid pig waste generated will be managed in accordance with these guidelines.</p>

In terms of the National Environmental Management Act (NEMA) EIA Regulations published in GNR 327, 325 and 324 of December 2014 (as amended on 7 April 2017), Government Gazette Number 40772, a Basic Assessment (BA) process is required as the project applies to the following listed activities (detailed in the Table below).

**Table 3: Listed Activities**

Relevant Notices:	Activity No (s) (in terms of the relevant notice):	Description of each listed activity as per the Government Notice:	Description of each listed activity as per the project description
GN R327	Listing Notice 1 Activity 4	<p><u>Activity 4</u></p> <p>The development and related operation of facilities or infrastructure for the concentration of animals [for the purpose of commercial production] in densities that exceed —</p> <p>(i) 20 square metres per large stock unit and more than 500 units per facility;</p> <p>(ii) 8 square meters per small stock unit and;</p> <p style="padding-left: 20px;">a. more than 1 000 units per facility excluding pigs where (b) applies; or</p> <p style="padding-left: 20px;">b. more than 250 pigs per facility excluding piglets that are not yet weaned;</p>	The proposed project will include the expansion of the existing piggery from under the 250 units threshold to more than 250 pigs per facility.
	Listing Notice 1 Activity 14	<p><u>Activity 14</u></p> <p>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</p>	The proposed project will include the expansion of the capacity of the fuel storage facility's tanks to underground storage of over 80m <sup>3</sup> but below 500m <sup>3</sup> .

### A3. 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.

Please describe the process followed to reach (decide on) the list of alternatives below

**A proposed design alternative was drawn up. There are no additional locational alternatives for this proposed project.**

Provide a description of the alternatives considered

**Table 4: Alternatives**

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")	Description
1	<b>Proposal (preferred alternative)</b>	<p>The proposed project involves the development and extension of an existing piggery and fuel depot on Holding 230 and 233 of the Vischkuil Agricultural Holdings, on the corner of Sydney Road and 7th Avenue, Gauteng Province. Vischkuil forms part of the Lesedi Local Municipality within the Sedibeng District Municipality. The property is approximately 4 ha in extent.</p> <p>The proposed development will enable the business to sustainably extend its agricultural footprint and ultimately sustain the business. The proposed project aims to provide sustainable produce and exercise best practices that are in line with new legislation and standards on pig welfare and fuel storage.</p> <p>The proposed piggery will, upon completion, include the following pig houses:</p> <ul style="list-style-type: none"> <li>• 4 x Breeder and Weaner house</li> <li>• 1 x Grower house</li> <li>• Farrowing Pens</li> </ul> <p>The application is for the construction of pig housing units with a maximum capacity of 500 pigs at the farm, during full operation. These units will be constructed adjacent to each other. The housing units will consist of a combination of slated and concrete floors. A fuel capacity of less than 500 000 LTS is planned for the storage facilities (Above ground and underground).</p> <p>A cemented waste dam is proposed for the piggery, where a solid waste separator will separate the wastewater into a liquid and solid fraction. This will allow for improvement in the wastewater quality. The solid waste will be composted for two to three weeks and thereafter used as fertiliser. Composting is seen as an environmentally acceptable method of waste treatment. Treating the waste reduces its odour and vector attraction. A fraction of the wastewater will be disinfected and recycled for cleaning purposes of the pig housing units, and the remaining liquid will be temporarily held in a plastic lined holding dam from where it will be collected by a tanker for use on agricultural land.</p> <p>Bulk Services that may be required, i.e., sewerage, have already been installed privately. Water provision for the proposed project will be supplied by the Municipality. Power has been sourced from Eskom for the existing facility. Access roads to and on the site are already in existence.</p>
2	Property Alternative	<p>Since there is an existing enterprise on the site, there have been no alternative properties or locations identified for the proposed project. Therefore, this is the only property the applicant can perform the proposed activities and it would not be economically feasible for the business to find and or purchase new property. The applicant is the owner of the property. Therefore, no alternate properties have been investigated in the Basic Assessment.</p>
3	Activity Alternative	<p>The piggery and fuel depot are existing operations on site, operating below the required capacities for environmental authorisation. Since this site is already housing the required facilities this has become an industry in which the applicant regards as their key skill which is leading to their current and future employment.</p>

		They are planning on upgrading these existing facilities and the expansion will further enhance the sustainability of the business.
4	Design or Layout Alternative	<p>The proposed design and layout of the fuel depot will be placed on the property in a means which is most practical. Two alternatives have been investigated. No change in impact is expected on the environment between the Fuel layout alternatives. The same area is utilised in all the alternatives.</p> <p>The layout of the piggery is focused on the biosecurity measure, which allows for more effective management of production as it lessens the risk diseases if the activity were to be an open environment. These also allow for the most efficient compliance to animal welfare legislation, maximising production outputs.</p>
5	Technology to be used	<p>For the piggery, the proposed technology to be used complies with pig farming standards and will advocate pig welfare and best practices in pig production. No alternate technologies have been investigated as the proposed technologies will follow SAPPOs guidelines in terms of best practices associated with pig farming.</p> <p>With regards to the fuel storage, no technology alternatives are being considered for this project as no alternatives which are feasible or reasonable are available. The storage of fuel for dispensing is governed by SANS 10089-3 (SANS 10089-3 (2010) (English): The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at the fuel depot and consumer installations), and the installation of the underground storage tanks and associated fuel handling infrastructure, will need to conform to these standards. This requirement limits the opportunity to implement alternate technology, therefore preferred technology requirements that are governed by SANS has taken the most appropriate engineering/architectural designs into consideration which reduces the environmental impacts.</p>



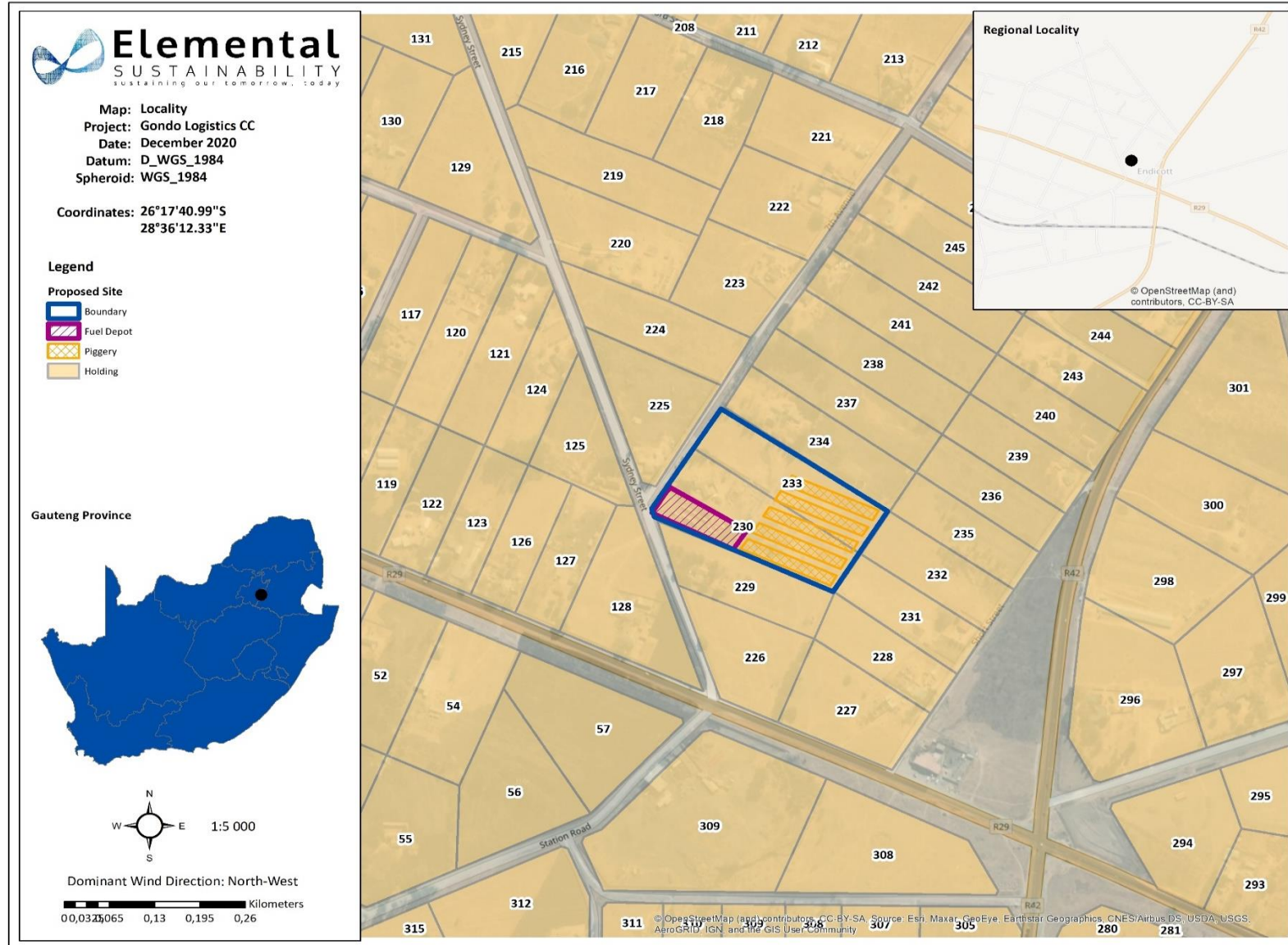


Figure 1: Site location of the preferred alternative (proposal)

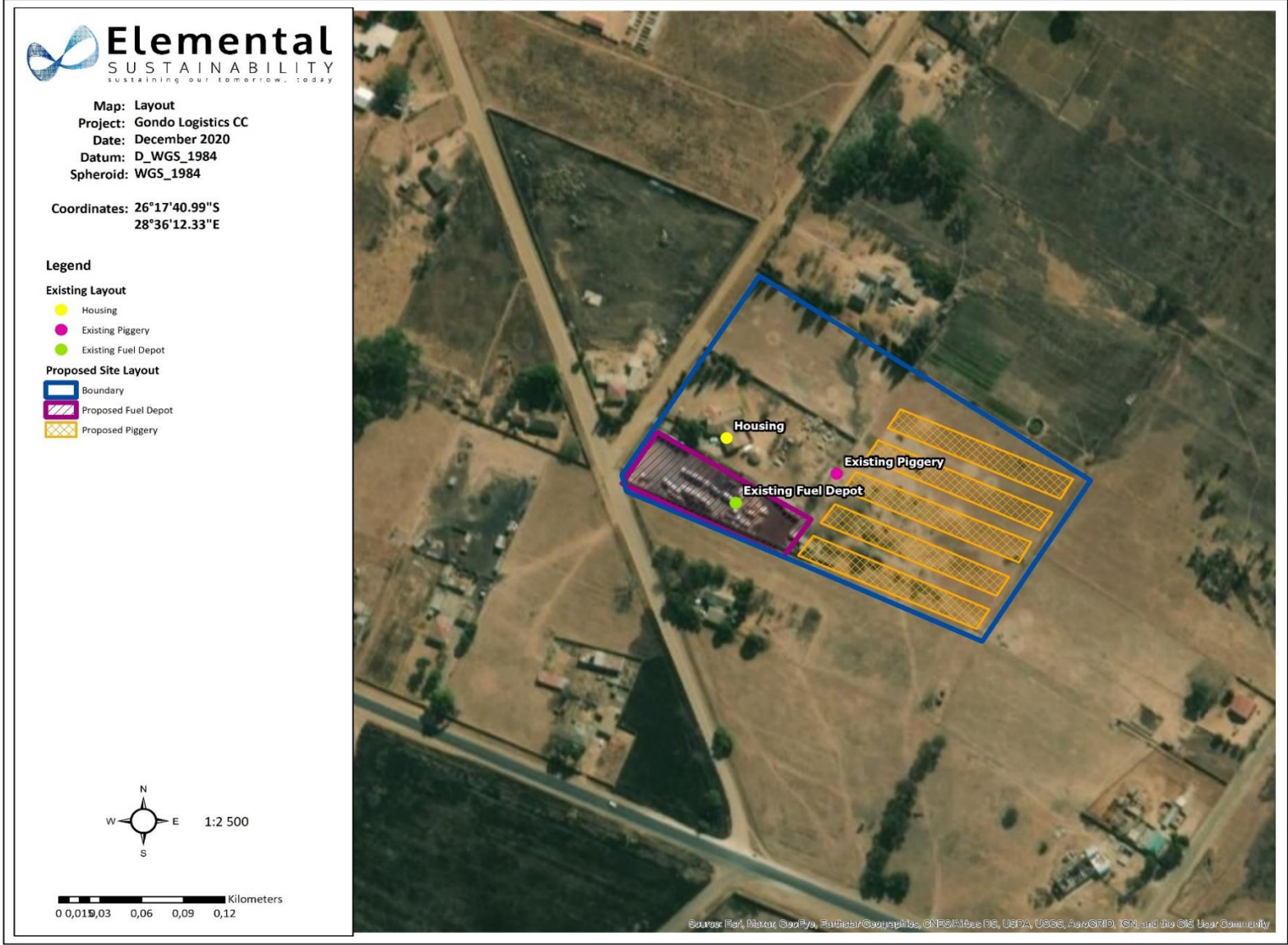


Figure 2: Site layout of the preferred alternative (proposal)

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

**Table 5: Alternative Motivation**

<p><b>MOTIVATION:</b></p> <p><b>Site location and layout alternatives</b></p> <p>Alternative properties or locations for the proposed activity have not been identified, due to the fact it is a site of a pre-existing piggery (although dilapidated), as well as current fuel storage activities by the applicant. The owner was only able to acquire this land parcel, and it would not be economically feasible for the business to find and or purchase new property. Therefore, no alternate properties have been investigated in the Basic Assessment. Layout alternatives are based on the wishes of the applicant and the most effective means of management of production for the piggery.</p> <p><b>Activity Alternative</b></p> <p>The piggery and fuel depot are existing operations on site and therefore an alternative activity has not been assessed or identified. When conducting due diligence for a suitable enterprise, the client considered an enterprise that would be suitable for the size of the farm as well as one that would maximize on the quality of the product and display good potential for growth along the value chain. Pork production was considered as the industry is growing, with the potential for opportunities in this industry such as pork production increasing by an annual average of 4.5%, second to broiler production which grew by 6%, production turnaround for pork is quicker and demand fundamentals for this product are unlikely to change. This industry also presents opportunities as there is a huge potential in the rural markets and exports. The development of a piggery facility and fuel depot is the type of development that the applicant wishes to establish.</p> <p><b>Design &amp; Technology Alternatives</b></p> <p>The design and operating plan for the proposed piggery is guided by extensive market research and an assessment of the need of the products that will be produced adding great economic value to the area. The proposed design and layout of the fuel depot will be placed on the property in a means which is most practical.</p>
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**A4. 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:

	<b>Size of the activity:</b>
Proposed activity ( <i>Total environmental (landscaping, parking, etc.) and the building footprint</i> )	Approximately 3.83 ha
<b>Alternatives:</b>	
Alternative 1 (if any)	
Alternative 2 (if any)	
	ha/ m <sup>2</sup>

or, for linear activities:

	<b>Length of the activity:</b>
Proposed activity	N/A
<b>Alternatives:</b>	
Alternative 1 (if any)	
Alternative 2 (if any)	
	m/km

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

Size of the site/servitude:

Approximately 4 ha

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

ha/m<sup>2</sup>

## A5. SITE ACCESS

### Proposal

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

YES

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

### Alternative 1

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

YES

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

### Alternative 2

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

YES

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

N/A

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

**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)

## A6. LAYOUT 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 to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500

- A1 = 1: 1000
- A2 = 1: 2000
- A3 = 1: 4000
- A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity 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, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) 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);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

#### **FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)**

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

**A Locality map depicting the proposed development site has been included as Appendix A.**

#### **A7. 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.

**Site photographs in the eight major compass directions have been included below and as Appendix B. Photographs indicating sensitive features on site can also be found in the Wetland Assessment Report, Archaeological Report, and the Terrestrial Biodiversity Compliance Statement attached as Appendix G.**



**Figure 3: Current pig cages**



**Figure 4: Runoff surface water on site**



**Figure 5: The property targeted for future pig pens**



**Figure 6: The property targeted for future pig pens**



**Figure 7: The property area targeted for fuel storage**



**Figure 8: The property targeted for fuel storage**



**Figure 9: Southern neighbouring property**



**Figure 10: Eastern neighbouring property**



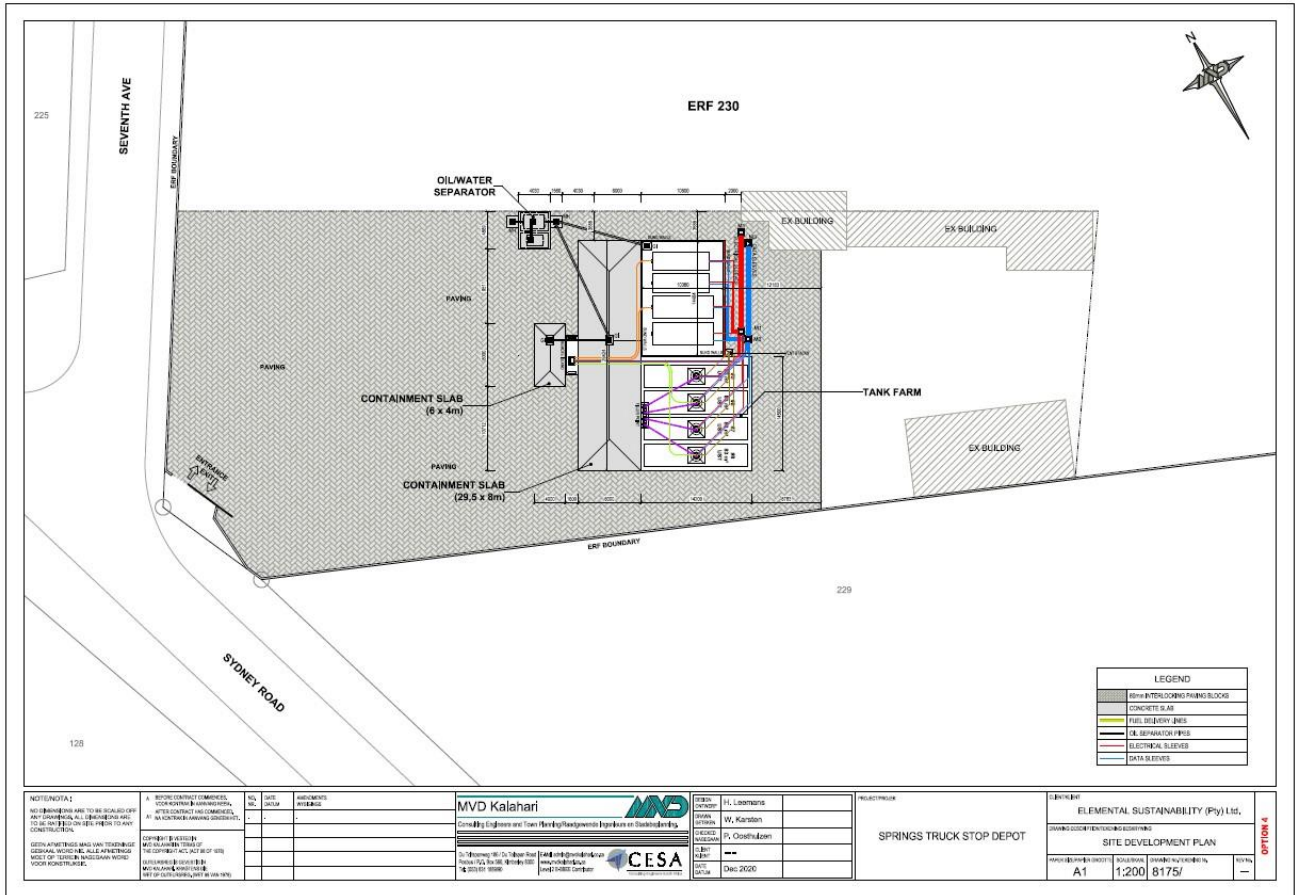


Figure 14: Alternative Option of the Proposed Fuel Depot Facility Illustration



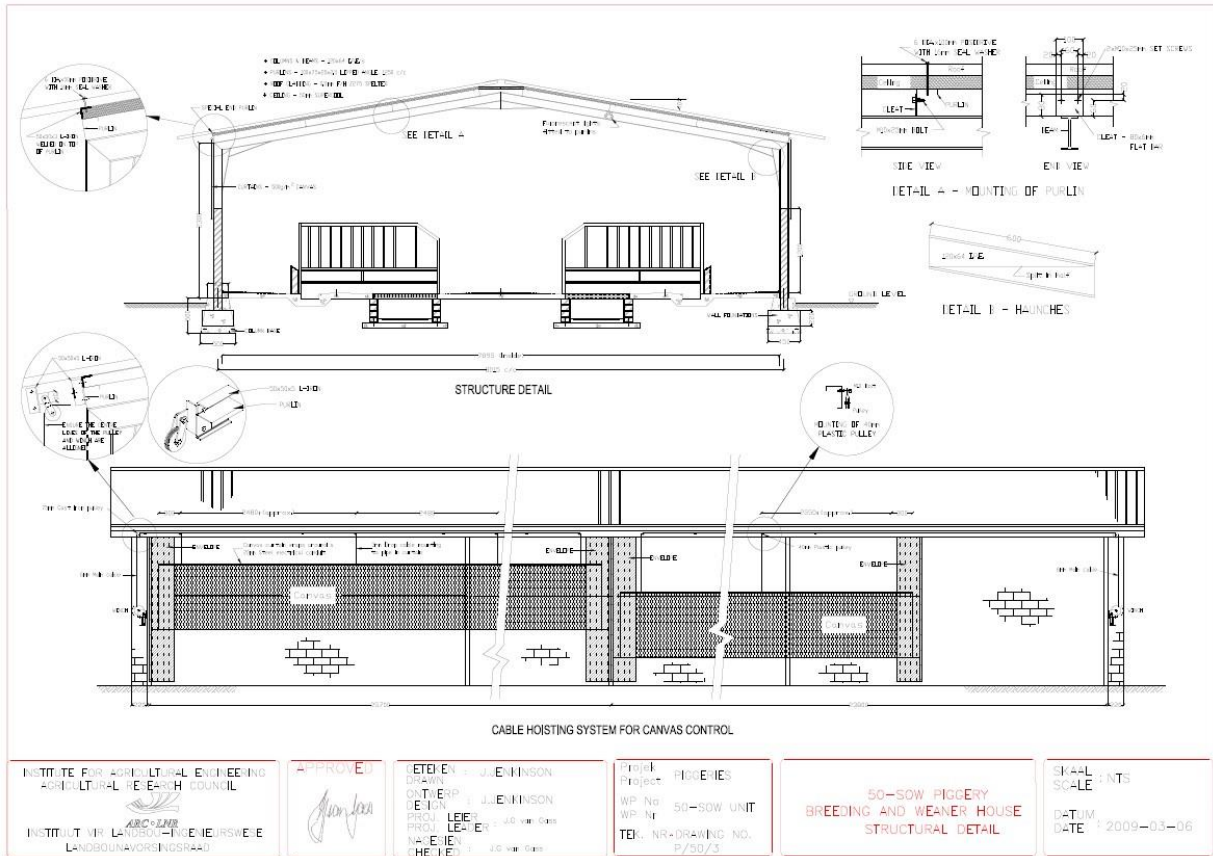


Figure 15: 50-Sow Breeder and Weaner Structural Detail

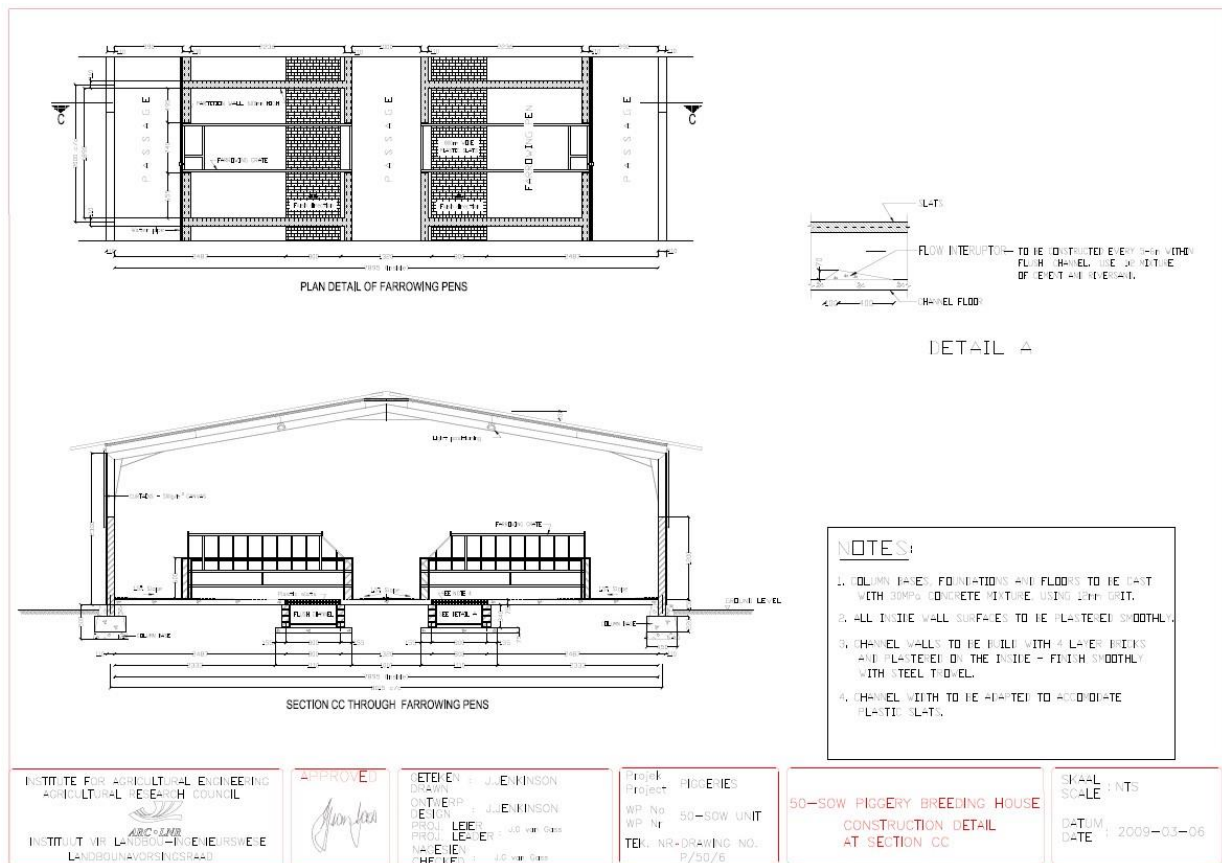


Figure 16: 50-Sow Breeder & Weaner House Section CC

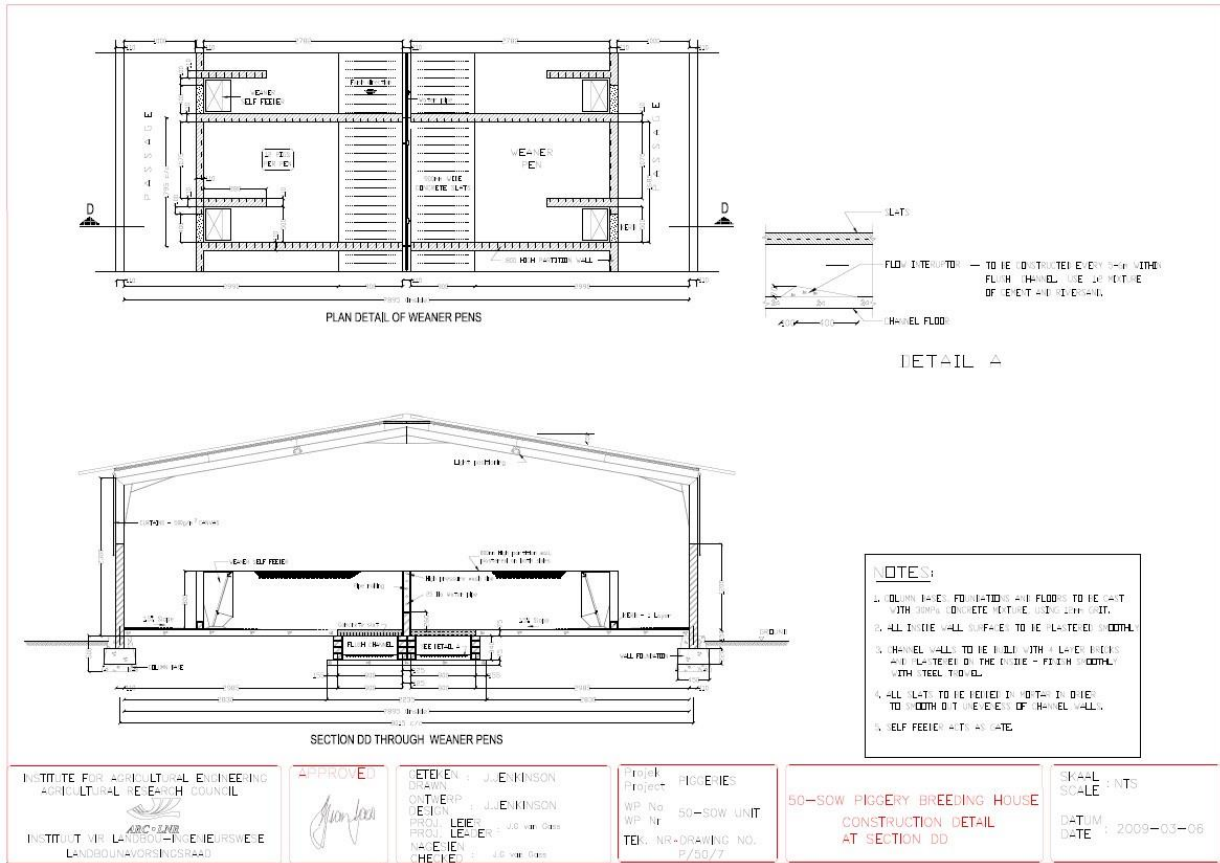


Figure 17: 50 Sow Breeder & Weaner House Section DD

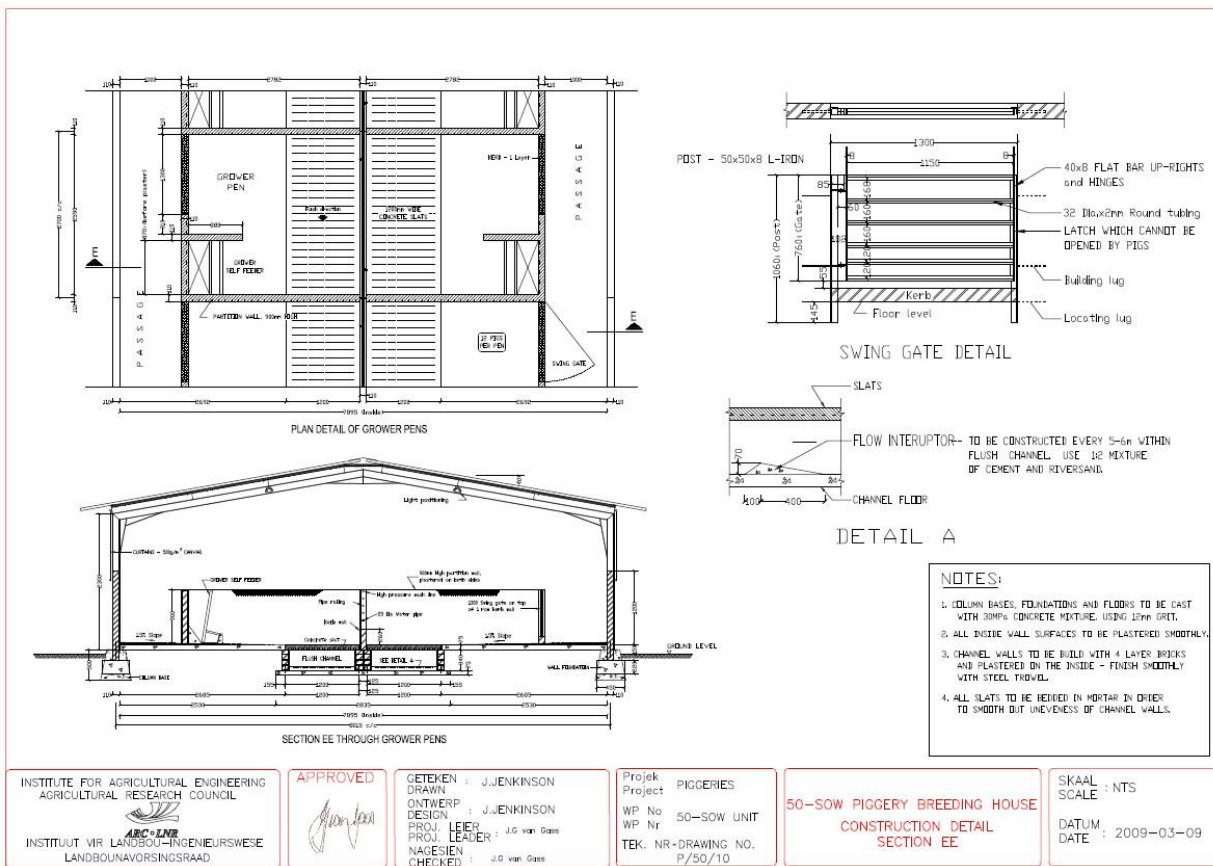


Figure 18: 50-Sow Grower House Section EE

## SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

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

### 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

0

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.

N/A

(complete only when appropriate for above)

## B1. PROPERTY DESCRIPTION

**Property description:** (Including Physical Address and Farm name, portion etc.)

**Holding 230 and 233 of the Vischkuil Agricultural Holdings, on Sydney Road and 7th Avenue intersection, Gauteng Province.**

## B2. 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°17'41.07"S

28°36'11.07"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
o	o
o	o

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

Addendum of route alternatives attached

N/A

The 21-digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	I	R	0	0	0	0	0	0	0	0	0	2	7	4	0	0	0	0
ALT. 1																				
ALT. 2																				
etc.																				

**B3. GRADIENT OF THE SITE**

Indicate the general gradient of the site.

Flat	
------	--

**B4. LOCATION IN LANDSCAPE**

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

			Plain	
--	--	--	-------	--

**B5. 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

	NO
	NO
YES	
	NO
	NO
	NO
	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)

	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):**

N/A	N/A
-----	-----

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



**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):**

N/A	N/A
-----	-----

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



**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):**

N/A	N/A
-----	-----

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

**A Geohydrological Impact Assessment was conducted by Kemisetso Technical Services (December 2020) (Appendix G). The following findings were made:**

The topography of the study area is slightly towards the north-west direction. Geology on the area is weathered and fractured mudstone, shale and interlayers of course grained sandstone. Groundwater levels in the area is approximately 45m, with plenty of surface water in the form of lakes and swamps.

- During desktop and hydro-census investigation, a total of 4 boreholes were identified within 1 km radius of the study area. The identified DWS registered borehole, which is located to the NW of the study area, could not be accessed during hydro-census. Three of the four boreholes were sampled, and water sample submitted to SANS accredited laboratory for analysis.
- The laboratory results of the borehole are assessed according to SANS241 (2015), DWAF Volume 4 (1996) and DWAF Volume 5 (1996).
- The SANS 241 (2015) is a water drinking guideline for human beings, the deemed acceptable for lifetime consumption (this implies an average consumption of 2L of water per day for 70 years by a person that weighs 60kg).
- The standard for drinking water from all three borehole look generally good. No exceeding constituents was observed for BH01 and BH03. There is an exceedance of Nitrate in BH02, which cause may cause an acute health condition.
- The agricultural use for irrigation standard of water from all three boreholes is generally good. No exceedance of analysed constituents was observed for BH02 and BH03. However, there is an exceedance of Sodium in BH01.
- The agricultural use for livestock watering standard of water from all three boreholes is good. No exceedance of analysed constituents was observed in all three boreholes. All constituents are within the acceptable range that does not have any adverse effects on the livestock.
- Aquifer type is classified as fractured and weathered and the overall groundwater vulnerability is low.
- Groundwater vulnerability is not only dependent on aquifer type but takes factors such as topography, recharge, depth to water table, soil type, impact of the vadose zone and Conductivity within the study area.

**Recommendations:**

- The exceeding Nitrate in BH02 should be further investigated and remedial action taken. The human consumption of this water will cause acute health problems in human beings. Alternatively, this water can be used for agricultural purposes (livestock watering), as the detected level of nitrate does not have any adverse effect on animals.
- The water from BH01 should not be used for plant irrigation, as it may be negatively affected plants due to exceeding acceptable sodium levels. This water is safe to use for human consumption and livestock watering.

- The topography of the site area is towards the NW and groundwater flow direction to the same direction, pollutants will migrate in this direction. A monitoring borehole should be drilled towards the NW of the study area to effectively monitor any pollution.
- Groundwater monitoring programme should be commission, whereby effective groundwater monitoring should take place regularly.
- Pump-testing of existing and new boreholes should be conducted by a suitably qualified team to determine borehole parameters and aquifer characteristics.
- Aquifer characterisation is vital in determine the vulnerability of the groundwater to pollution. Permeability of the rock-type plays a role in the rate at which pollutants will travel in the vadose zone. More permeable rock type will allow rapid movement of pollutants.
- Given the fact that there are shallow groundwater levels, a fractured and weathered aquifer system and a low groundwater vulnerability in the area, trenching should be done up to 5m below ground surface. This is to allow sufficient vadose zone between the tanks and the rest water table.
- Future monitoring should include hydrocarbon analysis, such as – but not limited to TPH – BTEX/GRO.

## B6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

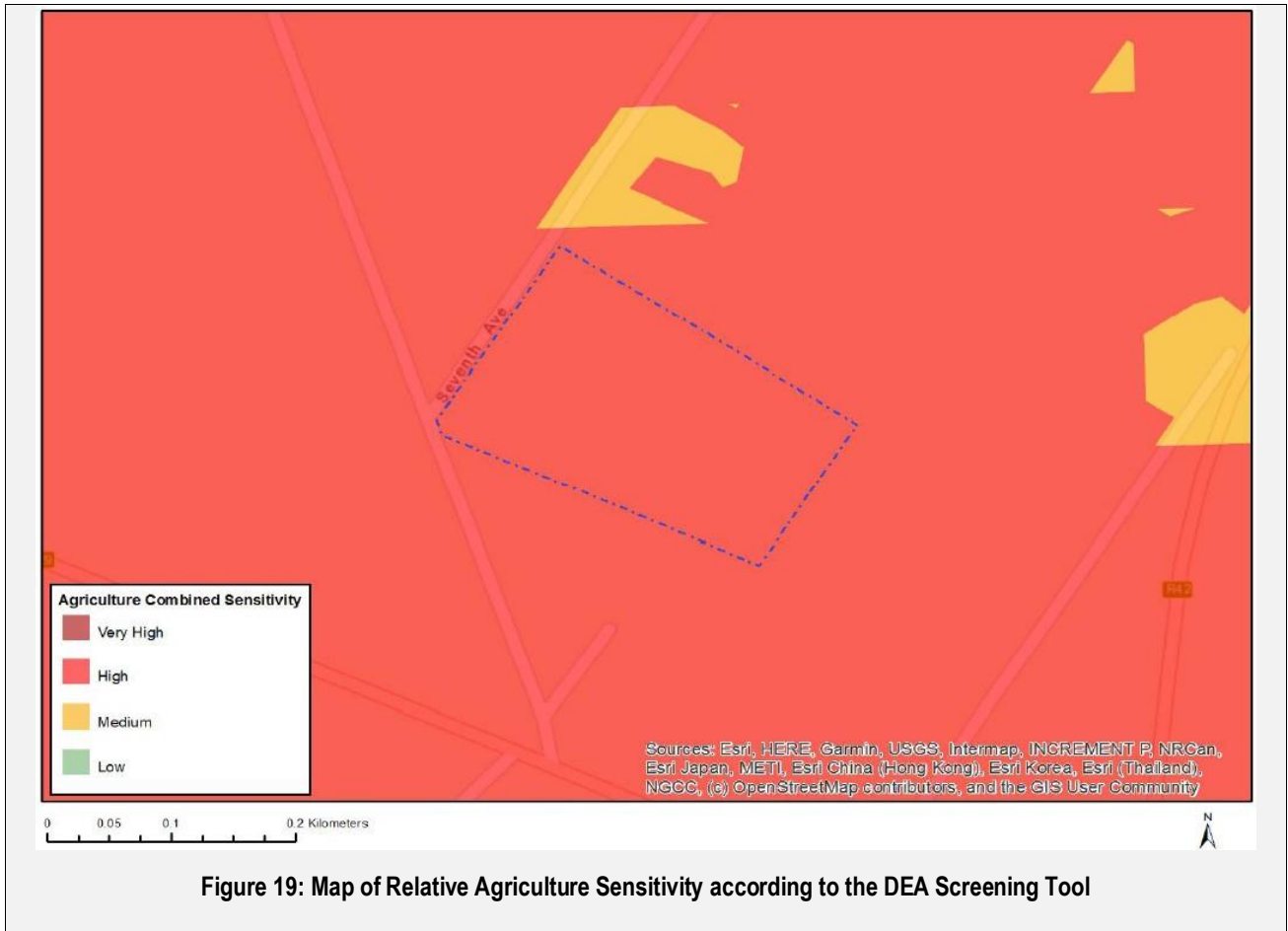
YES

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

According to the Sedibeng Spatial Development Framework (SDF) (2014-2017), the district is one of the two major high potential agricultural areas in Gauteng, and this site falls within one of the identified 3 agricultural hubs in this district: the Lesedi Agri-hub.

The proposed activity is directly in line with realizing agricultural potential. The following is an exert from the Lesedi 2018/2019 IDP pg 68 *“Lesedi is a very important resource to Gauteng in terms of food production, and this fact should be taken into consideration in the future planning of the area. The performance of the agricultural sector is very dependent on climatic conditions and may fluctuate from year to year. The agricultural sector does however present opportunities for downstream economic activities and job creation in terms of further processing of agricultural produce (e.g. Karan Beef, Eskort, and Mancho Ranch all of which create opportunities within Lesedi). 60% of the area is agricultural (Gauteng Agriculture Development Strategy). The challenges to Land Reform centre around funding, proper planning (Area Based Plans), access to information, absence of rural development strategy to counter urban sprawl, pricing of properties, alignment of food security and small farm development initiatives to economic development.”*

The property is located within an agricultural small holding area. The area can not be used for planting of crops as the size of the property is not sufficient for economic production. For this reason, the property is utilised as a piggery. The proposed expansion will ensure that the area is optimally utilised for agricultural purposes.



## B7. 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

	<b>Veld dominated by alien species</b> % = 35	<b>Landscaped (vegetation)</b> % = 10
	<b>Paved surface (hard landscaping)</b> % = 5	<b>Building or other structure</b> % = 25
		<b>Bare soil</b> % = 25

**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

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.

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:

Lorainmari den Boogert

Qualification(s) of the specialist:

Refer to Specialist Report in Appendix G for a full outline of qualifications.

- Master of Science in Geohydrology, in progress: expected completion December 2019 - University of the Free State, Bloemfontein, SA
- Master of Science Plant Science 2010 - Wageningen University, The Netherlands and University of Pretoria, SA
- Bachelor of Science (Honours) Plant Science (Cum Laude) 2008 - University of Pretoria, SA
- Bachelor of Science Ecology 2007 - University of Pretoria, SA

Postal address:

P.O. Box 2365  
Zwavelpoort

Postal code:

0036

Telephone:

072 200 6244

Cell: 072 200 6244

E-mail:

lorain@iggdrasilscientific.com

Fax: 086 696 5003

Are any further specialist studies recommended by the specialist?

YES  **NO**

If YES, specify:

**N/A**

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

YES  **NO**

If YES list the specialist reports attached below

**N/A**

Signature of specialist:

See note below.

Date:

**N/A**

**Please see the Specialist Declarations as per Appendix 6 of the NEMA EIA Regulations attached in Appendix G.**

**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

## B8. 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

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



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

**NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks**

NORTH

	34	1	34	34	7	
	1	1	34	1; 7	34	
WEST	1; 7	34	SITE	7	7	EAST
	34	1	1	1; 7	7	
	34	34	34; 15	7	34	
			SOUTH			

**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	
-----	--

**The Specialist Reports and Findings thereof are detailed below.**

**Terrestrial Biodiversity Compliance Statement, Iggdrasil Scientific Services (Pty) Ltd. – 26 November 2020**

Iggdrasil Scientific Services (ISS) was appointed by Westleigh Environmental Services (WES) to conduct the biodiversity assessment.

The ecological findings (desktop and site survey) identified the following features:

- The Blesbokspuit RAMSAR Wetlands are around 8km west of site.
- No World Heritage Sites within 50km of site. The site is just inside the Magaliesberg Biosphere Buffer Zone.
- The Devon Grassland IBA is approximately 7km south-east of site
- The only protected area within 10km is the formally protected Marievale Bird Sanctuary Provincial Nature Reserve, 8km west of site and associated with the Blesbokspuit RAMSAR wetlands and within the Blesbokspuit IBA.
- No NPAES occur within 10km of site.
- The site also overlaps the Critically Endangered Blesbokspuit Highveld Grassland ecosystem (NEM:BA, GN1002, 2011).
- The Eastern Karst Belt strategic groundwater resource is within 10km of site and almost envelops the site, west, north and east of site.

- The site has no provincial conservation significance.

From the desktop assessment, no significant ecological features occur on site and no significant or sensitive fauna populations are expected on site. This was confirmed by the site assessment. The most significant feature near site (7-10km from site) is the Blesbokspruit IBA and associated Blesbokspruit RAMSAR Wetlands and formally protected Marievale Bird Sanctuary Provincial Nature Reserve. In terms of this ecological area the following can be stated:

- The site does not offer significant water bird habitat and is unlikely to be utilised as a satellite habitat, either by migrating water birds or water birds dispersing from the Blesbokspruit.
- The site does not provide wetland habitat and dispersing or migrating wetland species are unlikely to utilise the site.
- Threats within the IBA are related to water quality and quantity issues. Water quality impacts on site are unlikely to impact on the wetlands. However, the fuel storage on site must be conducted in line with best practices to prevent leaks and spills that could enter the environment through runoff.

Although the site is present within the Critically Endangered Blesbokspruit Highveld Grassland ecosystem the site visit conducted by Dr Kasl confirmed that the site does not support any significant indigenous vegetation and neither the vegetation type nor the ecosystem was present on site. Based on the site photographs as well as the google earth imagery it is unlikely that *Lithops lesliei* subsp. *lesliei* would be present on site due to lack of habitat which would be a rocky pebble environment. Two species listed in GDARD's Biodiversity Management Red List species does prefer most habitats and the third prefers rocky habitat. The moist area in the north of the study site, therefore, might host the two moisture loving plants, however this is unlikely due to the disturbed nature of the area. For the sensitivity related to the moist area please refer to the wetland specialist report. The terrestrial vegetation present on site was sparse during the site visit and high levels of disturbance were noted by the fauna specialist as well as from google earth imagery. Based on this fact the terrestrial vegetation is assigned a low value in terms of sensitivity.

As there was no vegetation or natural habitat to sample, no formal transects, or survey procedures could be applied to the development footprint. Note was taken of any potential fauna habitats on site, but these were limited to man-made or highly modified habitats utilised by hardier fauna species, more adapted to surviving in impacted environments and tolerant of day-to-day anthropogenic activities associated with the agricultural activities. Therefore, these species are also less likely to be impacted by the proposed development.

The neighbouring sites are all agricultural and the proposed activities are in line with the current on-site and surrounding existing land uses.

As detailed above:

- No significant impacts will occur to ecological features.
- No significant impacts will occur to TOP or endemic fauna species which are unlikely to occur on the property in general.
- No significant impacts will occur to TOP or endemic flora species which are unlikely to occur on the due to lack of habitat and historic cultivation and grazing activities.
- No significant impacts will occur to general faunal assemblages, congregatory species, water birds as the site is unlikely to support such populations.
- The most significant potential impact, although of low likelihood in terms of the overall setting of the site, would be potential impacts associated with fuel spills which could contaminate downstream natural habitats through runoff. This must be managed on site.

The only recommendations / conditions that are relevant going forward with the development are:

- Potential fuel spills must be managed on site.
- The invasive species *Schinus molle* (pepper tree), NEM:BA 1b, should be removed.
- Increase in invasive plant species should be closely monitored, especially during construction and operational phases.
- Appropriate storm water control measures and oil traps must be placed at the fuel storage area

In terms of the terrestrial biodiversity, if the above conditions are met there should be no reason not to authorise the activity.

Limosella Consulting was appointed by Westleigh Environmental Services to undertake a wetland and/or riparian delineation and functional assessment to inform Environmental Authorisation for the proposed logistics and fuel holding facility. A site visit was undertaken in November 2020.

No wetlands were recorded on the study site, or within 500 m of the study area.

The impact and risk assessment assumes that the possibility of pollution of groundwater sources have been addressed in a dedicated study and are not considered here since it falls outside the scope. Important mitigation measures include:

- Ensure that the soil/water interactions for the site are well understood and that pollution through seepage of pollutants into the water table is prevented.
- Implement best practice during construction with the focus on preventing establishment of alien plants and preventing sediment pollution in the wetland.
- Control of alien invasive plants should form part of the maintenance plan.
- In the case of pollution of any surface or groundwater, the Regional Representative of the DHWS must be informed immediately and corrective action taken.

**Table 6: A summary of the on-site wetland conditions present**

	Quaternary Catchment and WMA areas	Important Rivers within 500 m
	C21E, 5 <sup>th</sup> WMA, Vaal Major	None
<b>NEMA 2014 Impact Assessment</b>	The Significance Rating scores for the following aspects are relevant:	
	Changes to flow dynamics	Very Low
	Sedimentation	Very Low
	Establishment of alien plants	Very Low
	Pollution of watercourses	Very Low
	Loss of fringe vegetation and habitat	Very Low
<b>DWS 2016 RA</b>	The Risk Scores fall in the <b>Low</b> category and authorisation may proceed through a General Authorisation	
<b>Does the specialist support the development?</b>	Yes, no wetlands were recorded within 500 m and therefore the risks are very low.	

## B9. 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.

Gondo Piggery and Fuel Depot is in Ward 12 in the Lesedi Local Municipality (LLM), Sedibeng District Municipality, Gauteng. The Sedibeng DM is described to be “transitional in nature with isolated towns and wide expanses of agricultural and environmentally sensitive land” (Sedibeng DM, 2016). The area where the proposed project is planned to be located is zoned for agricultural uses. Moreover, the project site is situated within the proposed Lesedi Agri-Hub.

The Sedibeng DM Spatial Development Framework states that the purpose of the designated agricultural land is to conserve the high potential agricultural areas and to promote food security. The SDF is clear that the supported land uses in the project area include agriculture, agricultural product beneficiation, agricultural schools, agro-processing, farmers market, commercial farming and related activities. The Lesedi SDF states the following: *“Agricultural land designated as “High Potential Agricultural Land” to be reserved, preferably for large and medium scale commercial agriculture. Any form of land use that does not promote agricultural development or may have negative effect on the productivity of this land should be discouraged within this area, any development with cumulative negative impacts should be discouraged, and management of this area should also be done in accordance with the Land Use Management Guidelines”.*

Ward 12 consists of all rural areas along the eastern and southern parts of the Lesedi Municipality (Refer to Table below). According to the Census (2011), approximately 25.1 % of the total population of LLM resides in rural areas (Lesedi Integrated Development Plan 2017 – 2018). As stated in the Lesedi Spatial Development Framework Review 2015, the Municipality is regarded as primarily rural, with Vischkuil/Endicott accounting for a smaller settlement located east of Springs. The District is reported to portray high levels of unemployment (30%) and poverty (64%), and the Lesedi Municipality accounting for a 29.5% unemployment rate among the economically active sector of the community. Commercial agriculture is regarded as the biggest land use within the Municipality, which includes small holding agricultural land that takes up a total area of approximately 6473 ha of the Municipality. Agriculture is a significant sector in terms of creating employment within the Municipality, with the major economic activity of ward 12 comprising of commercial agriculture and dry land crop cultivation. There are concerns that the sector pays low wages paid due to low levels of skilled farm workers.

Overall information provided in the SDF indicates that potential opportunities for SMME's using agriculture and agro-processing are high, considering that the Municipality and District is faced with a high unemployment rate. This would provide some form of relief to households that are at risk of hunger and marginalization.

The proposed development has thus identified an opportunity that will add great socioeconomic value to the agricultural industry in the area, to the consumer, the business, and to allow local employment opportunities, as well as contributing greatly to the farming industry of South Africa.

**Table 7: Summary of Ward 12's Socio-economic demographic**

Characteristics of Ward 12	
Population	9 825
Median Age	28
Language most spoken at home	IsiZulu
Migration	86%
Citizenship	87.3%
Households	2 560 (34.3% Informal Dwellings)
Female headed households	20.3%
Housing owned/paying off	32.5%
Flush toilet connected to sewerage	52.8%
Piped water inside dwelling	64%
Refuse disposal	57.1%
Employment	44.8%
Completed Grade 9 or higher	57.2%
Completed Matric or higher	30.7%
Children under 18	28%

## B10. 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 m<sup>2</sup> 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 m<sup>2</sup> 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?

	<b>NO</b>
--	-----------

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:

**Archaeological Impact Assessment (Heritage Management Consulting - 30 November 2020)**

An Archaeological Impact Assessment was conducted by Heritage Management Consulting (30 November 2020). The AIA did not identify heritage resources within or near the proposed Gondo Logistics Development Project area and no direct or peripheral impacts are envisaged on heritage resources. Therefore, it is the opinion of this author that the Gondo Logistics Development Project may proceed from a culture resources management perspective on the condition that mitigation measures are implemented where applicable, and provided that no subsurface heritage remains are encountered during construction.

The larger landscape around the project area indicates a rich heritage horizon where Later Iron Age sites and known Colonial Period resources are ample, primarily clustered in the vicinity of old farmstead and settlements. Locally, the project area has seen transformation by agriculture and urban activities potentially sterilizing surface and subsurface of heritage remains, especially those dating to pre-colonial and prehistorical times. This inference was confirmed during an archaeological site assessment during which no in situ archaeological or heritage remains were encountered. The following recommendations are made based on general observations in the proposed Gondo Logistics Development Project area:

- Considering the localised nature of heritage remains, the general monitoring of the development progress by an ECO or by the heritage specialist is recommended for all stages of the project. Should any subsurface palaeontological, archaeological or historical material, or burials be exposed during construction activities, all activities should be suspended, and the archaeological specialist should be notified immediately.
- It is essential that cognisance be taken of the larger archaeological landscape of the area in order to avoid the destruction of previously undetected heritage sites. It should be stated that it is likely that further undetected archaeological remains might occur elsewhere in the Study Area along water sources and drainage lines, fountains and pans would often have attracted human activity in the past. Also, since Stone Age material seems to originate from below present soil surfaces in eroded areas, the larger landscape should be regarded as potentially sensitive in terms of possible subsurface deposits. Burials and historically significant

structures dating to the Colonial Period occur on farms in the area and these resources should be avoided during all phases of construction and development, including the operational phases of the development.

- Since the intrinsic heritage and social value of graves and cemeteries are highly significant, these resources require special management measures. Should human remains be discovered at any stage, these should be reported to the Heritage Specialist and relevant authorities (SAHRA) and development activities should be suspended until the site has been inspected by the Specialist. The Specialist will advise on further management actions and possible relocation of human remains in accordance with the Human Tissue Act (Act 65 of 1983 as amended), the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), the National Heritage Resources Act (Act no. 25 of 1999) and any local and regional provisions, laws and by-laws pertaining to human remains. A full social consultation process should occur in conjunction with the mitigation of cemeteries and burials.

In addition to these site-specific recommendations, careful cognizance should be taken of the following:

- As Palaeontological remains occur where bedrock has been exposed, all geological features should be regarded as sensitive.
- Water sources such as drainage lines, fountains and pans would often have attracted human activity in the past. As Stone Age material occur in the larger landscape, such resources should be regarded as potentially sensitive in terms of possible subsurface deposits.

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

	<b>NO</b>
	<b>NO</b>

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 (SECTION 41)

**C1. THE ENVIRONMENTAL ASSESSMENT PRACTITIONER MUST CONDUCT PUBLIC PARTICIPATION PROCESS IN ACCORDANCE WITH THE REQUIREMENT OF THE EIA REGULATIONS, 2014.**

### **C2. 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.

Was the draft report submitted to the local authority for comment?

YES

If yes, has any comments 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):

**The Public Participation starts 4<sup>th</sup> of February 2021 for a 30 day period of comment and ending 5<sup>th</sup> of March 2021. This Draft BA Report is currently out for a 30-day review period and thus no comments from the local authority have been received to date.**

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

**The Public Participation starts 4<sup>th</sup> of February 2021 for a 30 day period of comment and ending 5<sup>th</sup> of March 2021. This Draft BA Report is currently out for a 30-day review period and thus no comments from the local authority have been received to date.**

### **C3. 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 – Comments received during the Consultation Phase will be included in the Final BAR to be submitted for decision by the Competent Authority (CA - GDARD).**

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

**The Public Participation starts 4<sup>th</sup> of February 2021 for a 30 day period of comment and ending 5<sup>th</sup> of March 2021. This Draft BA Report is currently out for a 30-day review period and thus no comments from the local authority have been received to date.**

#### C4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process 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 flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report 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.

#### C5. 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:

<b>Appendix E1</b>	Proof of site notice
<b>Appendix E2</b>	Written notices issued as required in terms of the regulations
<b>Appendix E3</b>	Proof of newspaper advertisements
<b>Appendix E4</b>	Communications to and from interested and affected parties
<b>Appendix E5</b>	Minutes of any public and/or stakeholder meetings – <b>N/A</b>
<b>Appendix E6</b>	Comments and Responses Report – <b>N/A at this stage of the process</b>
<b>Appendix E7</b>	Comments from I&APs on Basic Assessment (BA) Report - <b>N/A at this stage of the process</b>
<b>Appendix E8</b>	Comments from I&APs on amendments to the BA Report - <b>N/A at this stage of the process</b>
<b>Appendix E9</b>	Copy of the register of I&APs - <b>N/A at this stage of the process</b>

**Only the Public Participation documents that are pertinent to this stage of the process (i.e. Draft BAR phase) will be included in this version of the report. All PPP documentation and proofs will thus be included in the Final BA Report to be submitted to GDARD for decision making.**



## 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
- 2) Each alternative needs to be clearly indicated in the box below
- 3) 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)

### D1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

**Solid waste management**

Will the activity produce solid construction waste during the construction/initiation phase? **YES**  
 If yes, what estimated quantity will be produced per month? **5 m<sup>3</sup>**  
 How will the construction solid waste be disposed of (describe)?

**Anticipated construction solid waste to be produced includes building rubble, packaging material, overburden material and general litter from construction staff. It is recommended that construction waste/rubble will be collected and stored temporarily in designated containers for the different waste types, and thereafter disposed of at the nearest appropriate licensed waste disposal site.**

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

**Waste will be disposed of at an appropriate licensed landfill site, possibly at the nearest landfill site to dispose of building rubble.**

Will the activity produce solid waste during its operational phase? **YES**  
 If yes, what estimated quantity will be produced per month? **Pig waste = 16 m<sup>3</sup>  
Other = 1 m<sup>3</sup>**

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

**Solid waste generated during the operational phase will be stored in suitable bins and transported to the nearest licenced disposal site. The pig waste will be collected and stored on a concrete surface and composted. It will then be subjected to the aerobic process for two weeks to reduce its odour and moisture. The solid waste will thereafter be recycled and used as fertiliser.**

**Please note the GUIDELINE MANUAL FOR THE MANAGEMENT OF ABATTOIRS AND OTHER WASTE OF ANIMAL ORIGIN (GDARD, 2009) will be adhered to.**

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**

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

**All waste generated, except for pig waste, will always be disposed of at a registered disposal site.**

**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.

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:

**The pig waste will be collected and stored on a concrete surface and composted. It will then be subjected to the aerobic process for two weeks to three weeks to reduce its odour and moisture. The solid waste will thereafter be recycled and used as fertilizer. Recyclable waste such as plastic, glass, paper etc will be taken to the nearest recycling warehouse.**

**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? NO

If yes, what estimated quantity will be produced per month? m<sup>3</sup>

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

If yes, what estimated quantity will be produced per month? 16 m<sup>3</sup>

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

**The pig waste will fall through the slatted floor and will be temporarily stored under the slatted floor in a waste holding pit until it is flushed through an enclosed gutter conveying it to a concrete waste dam. The waste will be separated. The solids will be composted and available as fertiliser and a fraction of the wastewater which will not be used for cleaning purposes will be temporarily held in a plastic lined holding dam from where it will be collected by a tanker for use on agricultural land. These practices will be in accordance with the recommendations of Section 21 (e) of the National Water Act. The use of wastewater for agricultural purposes is in accordance with the Department of Water Affairs' recognition of wastewater as a valuable resource for use as a fertilizer. A Water use license application should be submitted for the above irrigation with wastewater practices to ensure it complies with applicable standards.**

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:

**A fraction of the wastewater will be disinfected and recycled for cleaning purposes of the pig housing units, and the remaining liquid will be temporarily held in a plastic lined holding dam from where it will be collected by a tanker for use on agricultural land.**

**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?

N/A

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:

**Emissions from the proposed development will include dust from vehicles using the gravel access road; this will however be minimal as the proposed development will not result in a significant increase of traffic. Dust will also be as a result of preparing the land and/or due to construction. Emissions will also include odour from the piggery waste and may cause a nuisance to the receptors. Piggery odours occur as a result of anaerobic metabolic processes that occur in slurry dams. A Solid Waste Separator will separate the wastewater into a liquid and solid fraction. This will allow for improvement in the wastewater quality. The solid waste will be composted for two to three weeks and thereafter used as fertiliser. Composting is seen as an environmentally acceptable method of waste treatment. Treating the waste reduces its odour and vector attraction. Considering the proposed measure to minimise pig waste odour and that the piggery is proposed in an area with very few and sparsely distributed dwellers, significant odour concerns are not anticipated for this project. Management actions as stipulated in the EMPr will help minimise this impact. It should also be noted that the odour from piggeries does not constitute an air quality emission, it is however considered and not underestimated as a nuisance and possible impact on the quality of life.**

**D2. WATER USE**

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

Surface water  Rainwater  Groundwater  Other

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:

**2000 kilolitres**

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

**N/A**

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

YES  NO

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

**NO**

### D3. 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**

### D4. ENERGY EFFICIENCY

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

**The facility will make use of natural ventilation and therefore minimising impacts associated with energy use. The farm will make use of energy efficient light bulbs for lighting.**

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

**None.**

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

### E1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

**A response on issues raised by interested and affected parties will be provided following the 30-day review period of the Draft BAR. These comments and Responses will be included in the Final BAR to be submitted to GDARD for decision-making.**

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

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

**A response from the EAP on issues raised by interested and affected parties will be provided following the 30-day review period of the Draft BAR.**

### E2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

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

#### **METHODOLOGY OF IMPACT ASSESSMENT:**

The identification of potential impacts includes impacts that may occur during the construction, operational and decommissioning phases of the proposed development. The assessment of impacts includes direct, indirect as well as cumulative impacts. To identify potential impacts (both positive and negative) it is important that the nature of the proposed projects is well understood so that the impacts associated with the projects can be assessed. The process of identification and assessment of impacts includes:

- Determining the current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured;
- Determining future changes to the environment that will occur if the activity does not proceed;
- Develop an understanding of the activity in sufficient detail to understand its consequences; and
- The identification of significant impacts which are likely to occur if the activity is undertaken.

The impact assessment methodology has been aligned with the requirements for BA Reports as stipulated in Appendix 1 (3) (1) (j) of the 2014 NEMA EIA Regulations (as amended), which states the following:

“A BA Report must contain the information that is necessary for the Competent Authority to consider and come to a decision on the application, and must include an assessment of each identified potentially significant impact and risk, including –

- (i) cumulative impacts;
- (ii) the nature, significance and consequences of the impact and risk;
- (iii) the extent and duration of the impact and risk;
- (iv) the probability of the impact and risk occurring;
- (v) the degree to which the impact and risk can be reversed;
- (vi) the degree to which the impact and risk may cause irreplaceable loss of resources; and
- (vii) the degree to which the impact and risk can be mitigated”.

As per the DEAT Guideline 5: Assessment of Alternatives and Impacts, the following methodology is applied to the prediction and assessment of impacts and risks. Potential impacts and risks have been rated in terms of the direct and indirect:

- Direct impacts are impacts that are caused directly by the activity and generally occur at the same time and at the place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable.
- Indirect impacts of an activity are indirect or induced changes that may occur because of the activity. These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken, or which occur at a different place because of the activity.

In addition to the above, the impact assessment methodology includes the following aspects:

**Nature of Impact/Risk** - The type of effect that a proposed activity will have on the environment.

**Spatial Extent** - The size of the area that will be affected by the impact/risk:

- Site specific;
- Local (<10 km from site);
- Regional (<100 km of site); or
- National.

**Duration** - The timeframe during which (lifetime of) the impact/risk will be experienced:

- Very short term (instantaneous);
- Short term (less than 1 year);
- Medium term (1 to 10 years);
- Long term (the impact will cease after the operational life of the activity (i.e., the impact or risk will occur for the project duration)); or
- Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient (i.e., the impact will occur beyond the project decommissioning)).

**Consequence** – The anticipated consequence of the risk/impact:

- Extreme (extreme alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that they permanently cease);
- Severe (severe alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that they temporarily or permanently cease);
- Substantial (substantial alteration of natural systems, patterns or processes, i.e., where environmental functions and processes are altered such that they temporarily or permanently cease);
- Moderate (notable alteration of natural systems, patterns or processes, i.e., where the environment continues to function but in a modified manner); or
- Slight (negligible alteration of natural systems, patterns or processes, i.e., where no natural systems/environmental functions, patterns, or processes are affected).

**Reversibility** - the extent to which the impacts/risks are reversible assuming that the project has reached the end of its life cycle (decommissioning phase):

- High reversibility of impacts (impact is highly reversible at end of project life i.e. this is the most favourable assessment for the environment);
- Moderate reversibility of impacts;
- Low reversibility of impacts; or
- Impacts are non-reversible (impact is permanent, i.e. this is the least favourable assessment for the environment).

**Irreplaceability** of Receiving Environment/Resource Loss caused by impacts/risks – the degree to which the impact causes irreplaceable loss of resources if the project has reached the end of its life cycle (decommissioning phase):

- High irreplaceability of resources (project will destroy unique resources that cannot be replaced, i.e., this is the least favourable assessment for the environment);

- Moderate irreplaceability of resources;
- Low irreplaceability of resources; or
- Resources are replaceable (the affected resource is easy to replace/rehabilitate, i.e. this is the most favourable assessment for the environment).

Using the criteria above, the impacts are further assessed in terms of the following:

**Probability** – The probability of the impact/risk occurring:

- Extremely unlikely (little to no chance of occurring);
- Very unlikely (<30% chance of occurring);
- Unlikely (30-50% chance of occurring)
- Likely (51 – 90% chance of occurring); or
- Very Likely (>90% chance of occurring regardless of prevention measures).

To determine the significance of the identified impact/risk, the consequence is multiplied by probability (qualitatively as shown in the Figure below). This approach incorporates internationally recognised methods from the Intergovernmental Panel on Climate Change (IPCC) (2014) assessment of the effects of climate change and is based on an interpretation of existing information in relation to the proposed activity, to generate an integrated picture of the risks related to a specified activity in a given location, with and without mitigation. Risk is assessed for each significant stressor (e.g. physical disturbance), on each different type of receiving entity (e.g. the municipal capacity, a sensitive wetland), qualitatively (very low, low, moderate, high, and very high) against a predefined set of criteria (i.e. probability and consequence) as indicated in the Figure below:

Risk/Impact = Consequence x Probability					
<b>Probability</b>	<b>Very Likely</b>				<b>Very High Risk/Impact (1)</b>
	<b>Likely</b>			<b>High Risk/Impact (2)</b>	
	<b>Unlikely</b>			<b>Moderate Risk/Impact (3)</b>	
	<b>Very Unlikely</b>		<b>Low Risk/Impact (4)</b>		
	<b>Extremely Unlikely</b>	<b>Very Low Risk/Impact (5)</b>			
		<b>Slight</b>	<b>Moderate</b>	<b>Substantial</b>	<b>Severe</b>
<b>Consequence</b>					

**Significance** – Will the impact cause a notable alteration of the environment?

- Very low (the risk/impact may result in very minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making);
- Low (the risk/impact may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making);
- Moderate (the risk/impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated);
- High (the risk/impact will result in major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision-making); and
- Very high (the risk/impact will result in very major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision-making (i.e. the project cannot be authorised unless major changes to the engineering design are carried out to reduce the significance rating)).

With the implementation of mitigation measures, the residual impacts/risks will be ranked as follows in terms of significance:

- Very low = 5;
- Low = 4;
- Moderate = 3;
- High = 2; and
- Very high = 1.

**Confidence** – The degree of confidence in predictions based on available information and specialist knowledge:

- Low;
- Medium; or
- High.

Impacts have been collated into the EMPr (Appendix H of the BA Report) and these include the following:

- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements (as applicable). This includes a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.
- Identifying negative impacts and prescribing mitigation measures to avoid or reduce negative impacts. Where no mitigatory measures are possible this is stated.
- Positive impacts and augmentation measures have been identified to potentially enhance positive impacts where possible.

Other aspects to be taken into consideration in the assessment of impact significance are:

- Impacts are evaluated for the construction and operational phases of the development. The assessment of impacts for the decommissioning phase is brief, as there is limited understanding at this stage of what this might entail. The relevant rehabilitation guidelines and legal requirements applicable at the time will need to be applied;
- Impacts have been evaluated with and without mitigation in order to determine the effectiveness of mitigation measures on reducing the significance of a particular impact; and
- The impact assessment attempts to quantify the magnitude of potential impacts and outline the rationale used. Where appropriate, national standards are used as a measure of the level of impact.

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.

**Feasible alternatives (i.e. location, activity and property alternatives) do not exist for the proposed project as this is the only land parcel that the applicant was able to acquire, and it would not be economically feasible for the business to find and or purchase new property. The proposed area of development has been informed and recommended by the specialist studies conducted as part of this Basic Assessment. It would not be economically feasible or practical for the applicant to embark on a different activity on the site. The No-Go alternative will be considered.**



**Table 8: Construction related impacts associated with the proposed development of a piggery and fuel depot facility for Gondo Logistics**

CONSTRUCTION PHASE												
Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
Proposal (Preferred Alternative)												
Direct Impacts												
Loss of vegetation communities and faunal habitat.	Site specific	Long term	Moderate	Likely	Moderate	Low	Moderate (Negative)	High	No	Yes	<ul style="list-style-type: none"> <li>Development planning must ensure loss of vegetation and disturbance is restricted to within the recommended development layout footprint.</li> <li>Clearly demarcate or fence in the construction site. Relocate specimens that are situated in the construction footprint, according to the advice of an appropriate specialist.</li> <li>Highlight all prohibited activities to workers through training and notices.</li> <li>Development must be planned for areas that are already transformed.</li> <li>Identify and mark indigenous trees on the ground. Those that are small and cannot be avoided should be transplanted elsewhere on site.</li> <li>No landscaping should be performed around the facilities. Natural vegetation must be allowed to recover in areas of disturbance. If recovery is slow, then a seed mix for the area (using</li> </ul>	Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											indigenous grass species) should be sourced and planted.	
Loss of Conservation Important (CI) or medicinally important flora.	Site specific	Long term	Moderate	Very unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Development planning to be restricted to already disturbed or transformed areas as far as possible, as per the recommended site layout.</li> <li>Prior to construction any CI and medicinally important floral specimens that may occur within the site layout footprint (areas zoned for the piggery, effluent dam, or fuel depot) should be collected and replanted in the surrounding areas.</li> </ul>	Low
Introduction and increase in alien vegetation.	Site specific	Long term	Moderate	Likely	Moderate	Low	Moderate (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Ensure that alien invasive species are identified on site.</li> <li>Regulate / limit access by potential vectors of alien plants.</li> <li>Alien invasive species identified on site should be removed (prioritising category 1 species) prior to construction.</li> <li>Manual or mechanical removal should be done as opposed to chemical removal.</li> <li>Carefully regulate / limit access by vehicles and materials to the construction site.</li> </ul>	Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											Demarcate or fence in the construction area. <ul style="list-style-type: none"> <li>All construction vehicles and equipment, as well as construction material should be free of soil and plant material. Therefore, all equipment and vehicles should be thoroughly cleaned prior to access on site.</li> <li>By law, remove and dispose of Category 1b alien species on site. All Category 2 species that remain on site must require a permit.</li> <li>Prohibit the introduction of domestic animals such as dogs and cats.</li> </ul>	
Loss and displacement of fauna on site and resulting influx of fauna to neighbouring areas.	Site specific	Short term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>After construction consider planting local indigenous bushes and trees around the site to improve habitat for fauna and attract indigenous fauna to the site.</li> <li>Keep needless noise to a minimum. Keep vehicle and pedestrian traffic to the site only.</li> </ul>	Very Low
Potential soil and water contamination as a result of construction activities.	Local	Short term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Phase vegetation clearing activities as far as possible to limit the area exposed at any one time.</li> <li>Where practically possible, the major earthworks should be undertaken</li> </ul>	Very Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											during the dry season (roughly from April to August) to limit erosion due to rainfall runoff. <ul style="list-style-type: none"> <li>Hazardous chemicals and materials to be stored in a designated area.</li> <li>Ensure that any spilled fuel is effectively cleaned using the appropriate products.</li> <li>The contractor must ensure that drip trays are available to collect any fluid that may result from accidental spillage, overflow and/or servicing.</li> <li>Immediately repair and/or remove leaking equipment from the site.</li> </ul>	
Potential Hindrance, trapping, killing of fauna.	Site specific	Short term	Slight	Likely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>All contractors on site must undergo environmental awareness training which must include the prohibition of any harm or hindrance to any fauna species.</li> <li>Contracts with contractors must specify actions that will be taken against contractors who do not conduct activities in line with the EMP.</li> <li>Should any fauna be accidentally trapped within the development area, activities will cease to provide the animal opportunity to escape or specialists contracted to</li> </ul>	Very Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											safely remove the animals from site.	
Increased use of electricity and groundwater during construction activities.	Local	Short term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Minimise electricity use to only when necessary and make use of renewable energy as a source of electricity.</li> <li>Regular inspection and maintenance of all boreholes, tanks, reservoirs, toilets, water pipes, valves and taps should be conducted, to prevent wasting water. Apply water saving techniques, such as re-use of water.</li> <li>Application of a WULA for the project to ensure the groundwater usage is regulated.</li> </ul>	Very Low
Sensory disturbance of fauna due to noise.	Local	Short term	Moderate	Likely	Moderate	Low	Low (Negative)	High	No	Yes	<ul style="list-style-type: none"> <li>Limit construction activities to daytime hours.</li> <li>Minimize or eliminate security and construction lighting, to reduce the disturbance of nocturnal fauna.</li> <li>All outside lighting should be directed away from sensitive areas.</li> <li>Commence (and preferably complete) construction during winter, when the risk of disturbing active (including breeding and migratory) animals, should be least.</li> </ul>	Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
Soil and surface water pollution as a result of spillage, improper handling, storage, mixing or disposal of cement and concrete.	Site specific	Short term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Mixing of cement or concrete must not take place on the soil surface, to be undertaken on designated areas.</li> <li>Establish appropriate emergency procedures for accidental contamination of the surroundings.</li> </ul>	Low
Construction activities may disturb or destroy sites or features of heritage importance.	Site specific	Long term	Slight	Very unlikely	Moderate	Low	Very Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Should any features of heritage be identified on site, these should not be disturbed and would be immediately reported to a Heritage specialist and Gauteng Heritage Resources Authority.</li> </ul>	Very Low
Potential deterioration of the existing road due to use by heavy construction vehicles.	Local	Short term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Limit vehicles coming to the site and limit to a temporary minimal duration.</li> <li>Maintain and/or upgrade the road.</li> </ul>	Low
Potential impact of traffic.	Local	Short term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Effective signage and traffic control measures along the route.</li> <li>Traffic should be restricted to the designated access roads and haul roads to avoid impact on the surrounding environment.</li> </ul>	Low
Generation of construction waste.	Site specific	Short term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Any waste generated during construction must be stored in such a manner that it prevents pollution and amenity impacts.</li> </ul>	Very Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
Potential of soil erosion due to exposed soil.	Site specific	Short term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Limit vehicles, people, and materials to the construction site.</li> <li>Construction to preferably be undertaken in winter when there is minimal risk of erosion.</li> <li>Revegetate denude area with indigenous flora as soon as possible</li> <li>Implement erosion protection measures on site to reduce erosion and sedimentation of nearby wetlands and streams. Measures could include bunding around soil stockpiles, and vegetation of areas not to be developed.</li> <li>Act before erosion develops to a large scale.</li> <li>Retain vegetation and soil in position for as long as possible, removing it immediately ahead of construction / earthworks in that area (DWAF, 2005).</li> <li>Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas.</li> <li>Limit vegetation removal to only the construction area,</li> </ul>	Very Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											avoid disturbance to other areas.	
Degradation of ambient air quality as a result of dust and other emissions generated.	Local	Short term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Exposed areas should be re-vegetated with locally indigenous flora. If the soil is compacted, it should be ripped, and fertilised.</li> <li>Implement effective and environmentally friendly dust control measures, such as mulching or periodic wetting of the entrance road.</li> <li>A complaints register should be kept on site, with records of complaints received and manner in which the complaint was addressed.</li> </ul>	Low
Noise disturbances as a result of construction activities.	Local	Short term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Activities that will generate the most noise should be limited to during the day in order to minimise disturbance to the neighbours.</li> <li>The noise created by the proposed development is not expected to be problematic. If required, noise reduction measures will have to be implemented in compliance with the Gauteng Noise Regulations.</li> <li>No sound amplification equipment to be used on site, except in emergency situations.</li> </ul>	Very Low



**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<ul style="list-style-type: none"> <li>Limit vehicles travelling to and from the site to minimise traffic noise to the surrounding environment.</li> <li>A complaints register should be kept on site, with records of complaints received and manner in which the complaint was addressed.</li> </ul>	
<b>Indirect Impacts</b>												
Increased storm water runoff/soil erosion.	Local	Short term	Moderate	Likely	Moderate	Low	Low (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Efficient drainage must be provided on site prior to construction.</li> <li>Effectively channel storm water on site.</li> <li>Discharge points of the storm water system must be monitored.</li> <li>Design and implement a storm water management plan that aims to minimise the concentration of flow and increase in flow velocity, as well as minimising sediment transport off site.</li> </ul>	Low
Degradation of adjacent nearby natural vegetation and wetlands.	Site specific	Short term	Slight	Very unlikely	Moderate	Low	Very Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>The site and construction footprint must be fenced, and no deleterious edge effects are allowed beyond the project boundary.</li> <li>Protect all areas susceptible to erosion (especially stockpiled soils and materials such as sand and tar) and ensure that there is no undue soil</li> </ul>	Very Low

**CONSTRUCTION PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											erosion resultant from activities within and adjacent to the construction camp and work areas. <ul style="list-style-type: none"> <li>• Store and handle potentially polluting substances and waste in designated, banded facilities.</li> <li>• Waste should be regularly removed from the construction site by suitably equipped and qualified operators and disposed of in approved facilities.</li> <li>• Keep sufficient quantities of spill clean-up materials on site.</li> </ul>	
The creation of new employment opportunities and skills development.	Local	Short term	Substantial	Likely	High	High	Moderate (Positive)	Medium	No	Yes	<ul style="list-style-type: none"> <li>• Ensure maximisation of job creation and promote local employment and skills training.</li> </ul>	High (Positive)

**No-Go Alternative**

**Direct Impacts:**

- None of the impacts mentioned above will occur.
- The site will remain with existing structures; no new clearance will occur which will result in no clearance of indigenous vegetation and no clearance of present alien species.
- No creation of unskilled, semi-skilled or skilled jobs.

**Indirect Impacts:**

- There are no indirect impacts during the construction phase for the No-go Option.
- No increase in revenue for construction companies.
- No new employment opportunities will be created.
- If the proposed project does not proceed, the potential increase in revenue for local suppliers of construction material will not be realised.

**Table 9: Operational related impacts associated with the proposed development of a piggery and fuel depot facility for Gondo Logistics**

OPERATIONAL PHASE												
Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
<b>Proposal (Preferred Alternative)</b>												
<b>Direct Impacts</b>												
Deterioration of water quality and impact on downstream aquatic ecology.	Local	Long term	Moderate	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Pig housing must have slatted floors which collect waste and conduct it through enclosed concrete canals.</li> <li>Pig waste must be stored in an enclosed concrete waste storage.</li> <li>The use of solid waste as compost on the agricultural field must adhere to Waste Act.</li> <li>Hazardous waste must be stored in suitable containers and disposed of accordingly.</li> </ul>	Low
Impact on sensitive areas such as wetlands and sensitive flora and fauna.	Local	Long term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Limit human activity on areas that are close to sensitive sites.</li> <li>Piggery activities must be undertaken away from these areas.</li> </ul>	Very Low
Impact on ambient air quality from piggery emissions and odour.	Local	Long term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Cover the waste dams to reduce the odour.</li> <li>Piggery must be kept clean as far as possible to minimise odour emissions, regularly flush housing units.</li> <li>Implement best practices in terms of waste regulation of the dam and practice good housekeeping of the pig housing units. Avoiding unnecessary build-up of waste in the housing units and dams.</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<ul style="list-style-type: none"> <li>Ensure sufficient ventilation of the housing units.</li> <li>Subject the pig solid waste to the aerobic process to reduce its odour. No waterlogging of compost to avoid creating anaerobic conditions leading to odours.</li> <li>Ensure that excrement, carcasses, feed, and other operational waste and hazardous materials are appropriately and effectively contained and disposed of without detriment to the air quality of the receiving environment.</li> </ul>	
Impact of dust and vehicle emissions generated during use of the road when transporting pigs and fuel during operation.	Local	Long term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Vehicles transporting to and from the farm must keep at minimum speed to reduce dust generation.</li> <li>Vehicles that are used must be roadworthy and regularly inspected in order to prevent unwanted emissions.</li> <li>Traffic dust will be minimal considering that the piggery will make use of one vehicle thus no significant increase in traffic.</li> </ul>	Very Low
Impact on biosecurity and transmission of diseases.	Local	Long term	Severe	Likely	Moderate	Low	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Training of workers to effectively handle sick and dead animals.</li> <li>Ensure effective pest management measures.</li> <li>Regularly clean the piggery to minimise influx of pests. Dead pigs must be removed from the</li> </ul>	High

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											facility as soon as possible, at all times. <ul style="list-style-type: none"> <li>Restrict piggery access and use disinfectant sprays on vehicles and personnel entering the site.</li> <li>Feeding areas must be regularly cleaned to prevent the attraction of flies.</li> <li>Piggery must have security fencing around it to prevent access of other animals such as dogs.</li> </ul>	
Potential injury to employees working with biological waste and potential for workers' safety being compromised due to handling hazardous material and biomedical substances.	Site specific	Long term	Severe	Likely	Moderate	Low	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Biological waste such as syringes must be collected and disposed of in a responsible, appropriate manner, preferably through the assistance of a veterinarian.</li> <li>Training of workers to safely store biological equipment.</li> <li>Worker to wear Personal Protective Equipment (PPE).</li> <li>Hazardous material must be correctly labelled and handled in a safe manner.</li> </ul>	High
Impact on groundwater due to use and spillage of chemicals on site, such as hydrocarbons and disinfectants.	Local	Long term	Moderate	Likely	Moderate	Moderate	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Chemicals must be used in the recommended amount and area and stored in a designated area. These areas must be regularly monitored.</li> <li>In the event of spills, the area to be cleaned immediately using bioremediation products.</li> <li>Ensure that any accidental spills do not move beyond the designated storage area.</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
Increased water usage due to abstraction from the borehole for water requirements of the facility.	Local	Long term	Moderate	Likely	Moderate	Moderate	Moderate (Negative)	High	No	Yes	<ul style="list-style-type: none"> <li>Water saving strategies should be practiced such as re-use and raising water conservation awareness.</li> <li>Create awareness on the importance of these resources and implement water saving mechanisms.</li> <li>Also make use of rainwater from to minimise abstraction demands.</li> <li>Prevent wasting of water such as leaving running taps.</li> <li>Regular inspection of use should be conducted, including regular inspection of the borehole, water tanks, for any leaks.</li> </ul>	Low
Impact on natural vegetation during operational activities.	Site specific	Long term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Activities should be restricted to already transformed areas.</li> <li>Existing site entrance should be used to reduce impact on natural vegetation.</li> </ul>	Very Low
Reduction in Conservation Important (CI) species (Harvesting of CI or medicinal flora).	Site specific	Long term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Prohibit harvesting of CI, medicinal species, and other indigenous flora.</li> <li>Environmental awareness training must be provided to workers on species of Conservation Importance.</li> </ul>	Very Low
Introduction and spread of alien species.	Site specific	Long term	Moderate	Likely	Moderate	Moderate	Moderate (Negative)	High	No	Yes	<ul style="list-style-type: none"> <li>Control or limit access by potential vectors of alien plants.</li> <li>Remove and dispose of Category 1b alien species on site and obtain permit to remove Category 2 species on site.</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<ul style="list-style-type: none"> <li>Manual or mechanical removal of alien invasive species should be done as opposed to chemical removal.</li> <li>Carefully regulate / limit access by vehicles and materials to the site.</li> <li>By law, remove and dispose of Category 1b alien species on site. All Category 2 species that remain on site must require a permit.</li> <li>Prohibit the introduction of domestic animals such as dogs and cats.</li> </ul>	
Impact of operational activities on fauna.	Site specific	Long term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	Yes	Yes	<ul style="list-style-type: none"> <li>Minimise or eliminate lighting, to reduce the disturbance of nocturnal fauna.</li> <li>All outside lighting should be directed away from sensitive areas.</li> <li>Minimize noise to limit its impact on sensitive fauna. Utilise quieter equipment where feasible.</li> <li>All equipment / machinery will be serviced and maintained within operating specifications to prevent excessive noise.</li> <li>Create awareness on the importance of fauna and ecosystem functioning.</li> </ul>	Very Low
Potential for fires to occur.	Local	Long term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Ensure effective fire management plans.</li> <li>Create safe storage on the premises for flammable</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<p>materials. If artificial burning is considered necessary, establish, and implement a fire management plan with emergency fire procedures.</p> <ul style="list-style-type: none"> <li>Maintain an effective fire break between the development area and the surrounding natural environment.</li> <li>Educate workers about the plan and emergency procedures with regular training and notices.</li> </ul>	
Noise from operational activities, pig sounds (squealing), prolonged presence of traffic and vehicles at the fuel depot.	Local	Long term	Slight	Likely	Moderate	Low	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Activities that generate the most noise to be limited to during the day.</li> <li>No sound amplification equipment to be used on site, except in emergency situations.</li> <li>Limit vehicles travelling to and from the site to minimise traffic noise to the surrounding environment.</li> <li>Avoid unnecessary disturbance of the pigs, to prevent excessive noise from the pigs.</li> <li>Keep complaints register at gate during all phases of the development and investigate complaints where reasonable and possible.</li> </ul>	Very Low
Generation of operational waste	Site specific	Long term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>All waste produced to be disposed of in permitted designated waste disposal site.</li> <li>Waste must be stored in designated areas for storage.</li> </ul>	Very Low



**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<ul style="list-style-type: none"> <li>Clearly demarcate appropriate storage for the different types of waste.</li> <li>Ensure regular removal of waste on site to prevent attraction of pests and disposal of waste in a permitted disposal site.</li> </ul>	
Potential impact of traffic.	Local	Long term	Slight	Likely	Moderate	Low	Low (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Limit the number of vehicles using this route.</li> <li>Traffic impact will be minimal considering that the piggery will make use of one vehicle thus no significant increase in traffic.</li> </ul>	Very Low
Potential impact on heritage resources.	Site specific	Long term	Slight	Unlikely	Moderate	Low	Low (Negative)	High	No	Yes	<ul style="list-style-type: none"> <li>The site does not have any heritage resources, however, should any archaeological features be discovered on site then a qualified Heritage specialist and SAHRA will be notified.</li> </ul>	Very Low
Contamination of soils through: <ul style="list-style-type: none"> <li>Indiscriminate disposal of waste; and</li> <li>Accidental spillage of chemicals such as hydrocarbon-based fuels and oils or lubricants spilled from vehicles and other chemicals from operational and maintenance activities e.g. paints.</li> </ul>	Site specific	Long term	Moderate	Likely	Moderate	Moderate	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Waste must be stored in designated areas for storage.</li> <li>Collect polluted stormwater runoff.</li> <li>Maintain underground storage tanks.</li> <li>Chemicals must be used in the recommended amount and area and stored in a designated area. These areas must be regularly monitored.</li> <li>In the event of spills, the area to be cleaned immediately using bioremediation products.</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
											<ul style="list-style-type: none"> <li>Ensure that any accidental spills do not move beyond the designated storage area.</li> </ul>	
<b>Indirect Impacts</b>												
Increased storm water runoff/soil erosion.	Local	Long term	Slight	Unlikely	Moderate	Moderate	Moderate (Negative)	Medium	No	Yes	<ul style="list-style-type: none"> <li>Storm water should be effectively channelled to avoid water retention on site.</li> <li>The storm water system must be monitored through inspection and repaired when necessary.</li> </ul>	Very Low
Security and safety impacts.	Local	Long term	Moderate	Likely	Moderate	Low	Moderate (Negative)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>The applicant must take precautionary measures to minimise crime incidents in the area that are associated with the proposed development.</li> <li>The applicant will also hire the services of a security guard to monitor the proposed facility.</li> <li>Security should be vigilant as to who gains access to the site.</li> <li>Pigs to be housed in an enclosed safe area to prevent incidents of theft.</li> </ul>	Low
The proposed development has the potential to create local employment and skills development.	Local	Long term	Moderate	Very Likely	High	High	Moderate (Positive)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Maximise job creation and promote local employment and skills training.</li> </ul>	Low
The proposed project will contribute to the local economic market through the supply of pork to local butcheries and vegetables to supermarkets.	Local	Long term	Moderate	Very Likely	High	High	Moderate (Positive)	Medium	Yes	Yes	<ul style="list-style-type: none"> <li>Ensure that local butcheries and supermarkets are utilised as consumers.</li> </ul>	Low

**OPERATIONAL PHASE**

Potential Impact Description	Extent	Duration	Consequence	Probability	Reversibility	Irreplaceability	Significance Rating (Positive or Negative)	Degree of Confidence	Can impact be avoided?	Can impact be managed or mitigated?	Proposed Mitigation	Significance Rating after Mitigation
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**No-Go Alternative**

**Direct Impacts:**

- The no-go option would mean that the status quo would remain, the property will retain its current structures and none of the impacts mentioned above will occur.
- The no-go option will not contribute towards food security, increased meat and fuel production and job creation within the local community.

**Indirect Impacts:**

- If the proposed project does not proceed, increased income and economic benefits will not be realised.
- No new employment opportunities will be created.
- If the proposed project does not proceed, the local industries that rely on the supply of pork could experience hindered economic growth potential.

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

- Terrestrial Biodiversity Compliance Statement, Iggdrasil Scientific Services (Pty) Ltd. – 11 November 2020
- Wetland Delineation and Functional Assessment Report, Limosella Consulting Pty Ltd – November 2020
- Risk Matrix (Based on DWS 2015 publication: Section 21 c and I water use Risk Assessment Protocol), Limosella Consulting Pty Ltd – 6 November 2020
- Archaeological Impact Assessment, Heritage Management Consulting – 30 November 2020
- Geohydrological Impact Assessment, Kemisetso Technical Services – December 2020

#### Appendix G

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

**Uncertainties form part of any proposed development with regards to the actual degree of impact that the development will have on the immediate environment. Any actual and/or site-specific results will only be determined once development has commenced and throughout the life cycle of the proposed project.**

**The following assumptions and limitations are applicable to the Wetland Delineation and Functional Assessment Report:**

- The information provided by the client forms the basis of the planning and layouts discussed.
- It is assumed that a second phase study will include a confirmation of preliminary watercourse delineations and functional and integrity assessments presented in this report.
- Floodline calculations fall outside the scope of the current assessment.
- A Red Data scan, fauna and flora, and aquatic assessments were not included in the current study.
- Species composition described for landscape units aimed at depicting characteristic wetland species and did not include a survey for cryptic or rare species. However, a Terrestrial Biodiversity Compliance Statement was conducted by Iggdrasil Scientific Services (Pty) Ltd which included a survey for rare species.

### E3. 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.

**Decommissioning and/or closure phase is not expected to occur for the proposed piggery and fuel depot. Should there be plans to close down the piggery and/or fuel depot; a closure plan will be submitted to the competent authority for approval and it will comply with the relevant legislation at the time of closure.**

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

- Terrestrial Biodiversity Compliance Statement, Iggdrasil Scientific Services (Pty) Ltd. – 11 November 2020
- Wetland Delineation and Functional Assessment Report, Limosella Consulting Pty Ltd – November 2020
- Risk Matrix (Based on DWS 2015 publication: Section 21 c and I water use Risk Assessment Protocol), Limosella Consulting Pty Ltd – 6 November 2020
- Archaeological Impact Assessment, Heritage Management Consulting – 30 November 2020
- Geohydrological Impact Assessment, Kemisetso Technical Services – December 2020

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

N/A

## E4. 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:

Vehicles transporting material to and from the site will potentially increase traffic load along the internal access road and potentially add to the noise and dust level to the nearby residents. Potential exists for additional traffic during the construction phase, this is however of a temporal duration and impact. Increase in vehicular traffic during the operation phase will also not be significant as this will occur during the transportation of pigs, and this will not occur daily. One truck will be used for the safe transportation of pigs. It should be noted that the piggery and associated activities already exist, and the proposed development is only an expansion of the activities currently already present on-site, which adds to the motivation that traffic will only be a temporary impact expected during the construction of the additional facilities.

There is likely to be increased on services such as water. Large amount of abstraction of water from different sources, coupled with water abstraction for this development, could result in decreased ground water availability of adjacent properties. This study will however apply water saving strategies such as the re-use of water for cleaning purposes in the facility. It will also make use of surface water stored in the tank for other domestic purposes.

Waste management (including wastewater) and biosecurity impacts as a result of the proposed development and other similar or different activities in the area. Wastewater management should be properly planned, designed, and installed to ensure that the piggery waste is effectively removed from the housing units. Waste management methods must be in accordance with the relevant legislation and stipulated guidelines. The implementation of a waste management plan, as suggested in the EMP, could reduce factors that lead to disease outbreaks. Gondo should make use of veterinarians to ensure the health of the pigs, and to obtain advice on measures that will reduce the risk of diseases. The proposed development has the potential to impact the socio-economic status of the local area through job creation, skills development and increased pork production and fuel supply to the local market. This impact will not be mitigated as mitigation will not improve the local socio-economic situation.

## E5. 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 development of a piggery and fuel depot, along with associated infrastructure will exert an impact on the environment; but based on the findings of the specialist studies and recommendations (Appendix G), and the locality of the site, the impacts associated with this proposed development can be mitigated to an acceptable level (Low).

The creation of temporary and permanent job opportunities in the area will have a positive impact on the surrounding community. The increase in the production of food products in the region is also viewed as a positive impact. With the implementation of the mitigation measures suggested in this report and based on the information available to date, the site visit undertaken, it is the EAP's opinion that there are no fatal flaws to the project, provided the mitigation set out is adhered to and that the developer shows commitment to the sustainable development.

### Alternative 1

N/A

### Alternative 2

N/A

### No-go (compulsory)

The no-go option would mean that the status quo would remain. Environmental impacts would not be impacted on any further than the current situation. The vegetation on site would retain its current status and no further development would occur on the site. Meat production and fuel provision on the farm will not be increased and the opportunity for the business to sustainably extend its agricultural footprint and ultimately sustain the business will not be realised. The no-go option will not promote a positive impact in terms of economic benefits for the applicant and a contribution to South Africa's food security will not be realised. The environmental impacts associated with the proposed development can be mitigated and can be effectively managed with the implementation of effective measures as discussed in the EMP. The opportunity to improve the local socioeconomic situation and to use best practice pig farming methods, including improved pig welfare, will not be realised.

## E6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

For proposal:

- Impact on soil (erosion and dust)
- Loss of vegetation and faunal habitat
- Introduction and increase in alien vegetation
- Noise generation
- Air quality impact
- Potential for pollution of water sources
- Potential for impacts due to abstraction of groundwater
- Waste generation
- Impact of pests and disease transmission
- Impact of traffic
- Employment opportunities created

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.

As mentioned above under "Alternatives", this proposed project is the development of a fuel depot and piggery facility and associated infrastructure. These developments will be according to best guidelines within the environmental legislation and ensuring minimal environmental impacts.

This project falls under the DEA "Special Needs and Skills Development Programme". Thus, it is not feasible for the relocating of the proposed fuel depot and piggery site as firstly, this is the only available land to the applicant; secondly there is an existing enterprise on this site in which the applicant is engaged in. This has also resulted in a large infestation in alien species and a degraded site (see Appendix G). The site further ensures minimal biosecurity threats to the piggery facility where there is controlled access by people as well as other animals, by this preventing pests and transmission of infections posing a threat to the animals.

## E7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

### 1) GAUTENG TRANSFORMATION, MODERNISATION AND RE-INDUSTRIALISATION STRATEGY (TMR) 2014

The Gauteng Transformation, Modernisation and Re-industrialisation Strategy (TMR) is a strategic roadmap towards an integrated city-region characterised by social cohesion and economic inclusion. The strategy identifies the apartheid space economy and human settlements patterns as key structural challenges.

The TMR strategy proposes ten pillars which will ensure integrated, socially cohesive and economically inclusive development. The ten pillars are:

1. Radical economic transformation. Revitalize and mainstream the township economy through the key economic sectors of finance, automotive industry, manufacturing, information and communication technology (ICT), tourism, pharmaceuticals, creative industries, construction and real estate.
2. Decisive spatial transformation. Planned and integrated urban development which will enable more integrated and sustainable human settlements and communities that are inclusive and diverse.
3. Modernise the public service. Radically change the way government works to put people at the centre.
4. Accelerate social transformation. Raise the living standards and achieve quality of life for all people - improve education and health care, provide social protection for the vulnerable, eradicate poverty and build social cohesion and solidarity.
5. Re-industrialise Gauteng as our country's economic hub. Infrastructure development, specifically the massive rollout of transport infrastructure, will be used to revitalize and modernize old industries.
6. Modernise the economy. Create decent jobs and achieve economic inclusion by bringing township entrepreneurs and SMMEs into the mainstream economy, and promote the finance, automotive industry, manufacturing, ICT, tourism, pharmaceutical, creative industry, construction and real estate sectors.
7. Modernise public transport and other infrastructure. Public transport will be used to make Gauteng look different through the development of the Aerotropolis and OR Tambo Special Economic Zone. Particular attention will be given to the West Rand and Sedibeng regions respectively in order to revitalize their economies and connect them to the economic centres of the Gauteng city-region.
8. Modernise human settlements and urban development. New post-apartheid cities will be a combination of modern public transport modes, integrated and sustainable human settlements that are socially and economically inclusive and promote urban green development. Particular attention will be given in this regard to the West Rand and Sedibeng Regions. The renewal of old towns and inner-city regeneration will be a key focal point. In existing human settlements, the focus will be to invest in the renewal of townships, especially the twenty-five old townships and old informal settlements that have been neglected – in this regard Evaton was identified.
9. Taking a lead in Africa's new industrial revolution. Gauteng holds the key to strengthening economic trade and partnerships with African and Brics countries, being the fourth biggest economy in the continent.
10. Transform the state and governance. Specific attention will be given to eradicating corruption.

The TMR sets the goal to reconfigure the Gauteng City Region's space and economy along five development corridors that have distinct industries and different comparative advantages:

- The **Central Development Corridor** - anchored around the City of Joburg as the hub of finance, services, ICT and pharmaceutical industries;
- The **Eastern Development Corridor**- anchored around the economy of the Ekurhuleni Metro as the hub of manufacturing, logistics and transport industries;
- The **Northern Development Corridor** - anchored around Tshwane as our nation's administrative Capital City and the hub of the automotive sector, research, development, innovation and the knowledge-based economy;
- The **Western Corridor** encompassing the economy of the current West Rand district and the creation of new industries, new economic nodes and new cities;

- The **Southern Corridor** encompassing the economy of the Sedibeng district and the creation of new industries, and sustainable human settlements, promotion of agriculture and tourism.

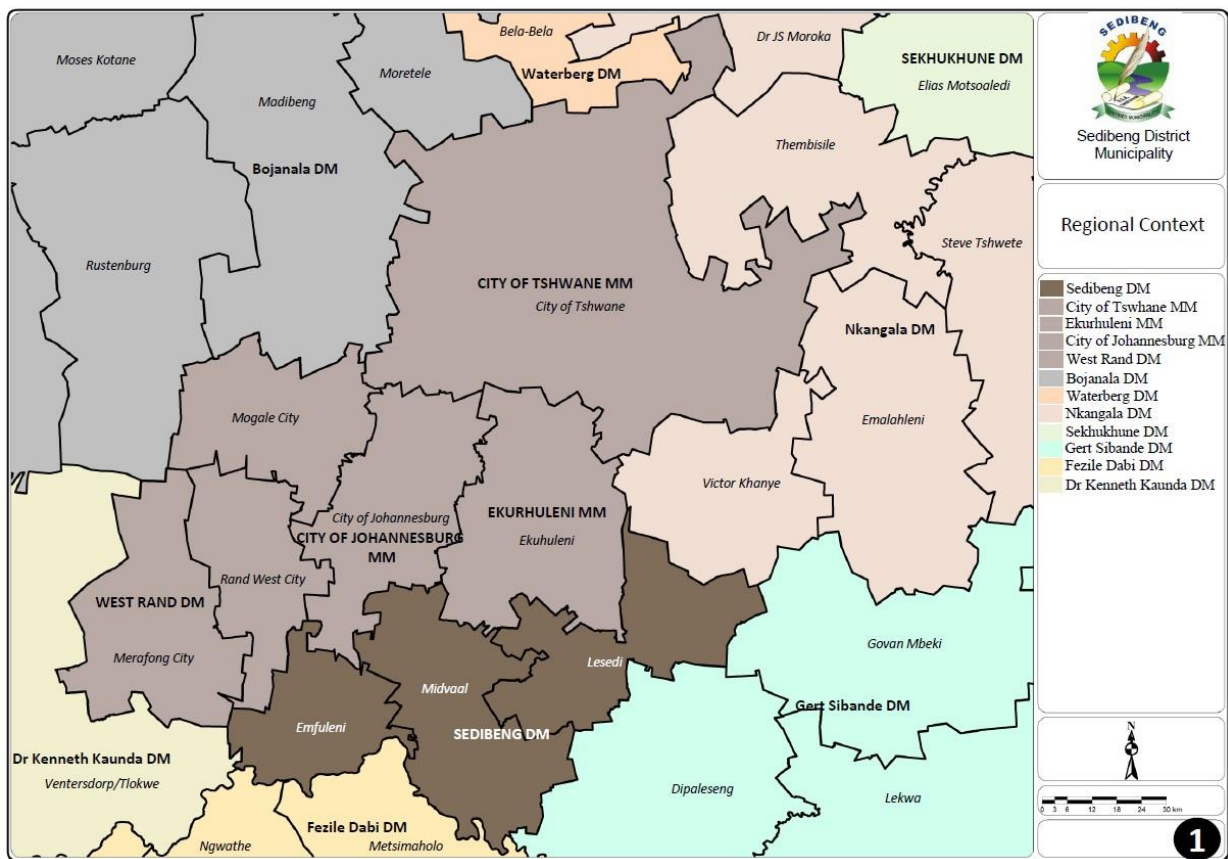


Figure 20: Regional municipalities of the Gauteng area

Provincial government intends making three macro interventions jointly with municipalities and the private sector to change the space and structure of the economy of Gauteng and to address unemployment, poverty and inequality. Each of these macro interventions will be supported by specific projects, with the projects relevant to the Sedibeng DM listed in Table 10 below:

Table 10: Transformation, Modernisation and Re-industrialisation Interventions and Projects

Macro Interventions/Game Changers	Projects Relevant to the Sedibeng District
Energy Mix and Gauteng Green Agenda	<ul style="list-style-type: none"> <li>• Waste to energy projects (CoJ, West Rand &amp; Sedibeng), feasibility studies have been done.</li> </ul>
Township Economy Revitalisation	<ul style="list-style-type: none"> <li>• Steel fabrication hub</li> </ul>
ICT and broadband connectivity for the GCR	<ul style="list-style-type: none"> <li>• Broadband Networks in (GBN, Sedibeng, CoJ and Tshwane)</li> </ul>
Spatial Transport Transformation	<ul style="list-style-type: none"> <li>• Bus rapid transport systems – extension to Sedibeng DM.</li> <li>• Gauteng freight and logistics hubs – possible further hubs in Sedibeng.</li> </ul>
Agritropolis	<ul style="list-style-type: none"> <li>• Upgrading of the Vereeniging Market, including in Midvaal</li> <li>• Agro-processing facilities</li> <li>• Upgrade road and rail links</li> </ul>
Sustainable human settlements	<ul style="list-style-type: none"> <li>• Mega human settlements – Boiketlong in Erfuleni LM (15 000 units), Kwazenzele in Lesedi LM (1 794)</li> </ul>
New nodes identified in the Gauteng City Region initiative	<ul style="list-style-type: none"> <li>• River City</li> <li>• Gauteng Highlands</li> <li>• Savanna City</li> <li>• ArcelorMittal, housing developments</li> </ul>



Therefore, the proposed area falls within the Southern Corridor of the TMR and is related to the Agritropolis Macro Intervention as listed in the Table above.

## **2) GAUTENG SPATIAL DEVELOPMENT FRAMEWORK 2030**

The Gauteng Spatial Development Framework (SDF) envisages Gauteng in 2030 is an integrated, connected space that provides for the needs of all who are born in or drawn to the province. Ten high-priority provincial spatial development proposals are outlined, that should be followed through in terms of the Sedibeng SDF formulation:

1. Intensify nodes, public transport routes and stations, to optimise the benefits of nodes and public transport routes in polycentric networks.
2. Strengthen, maintain and enhance nodes as identified by each municipality to ensure that development takes place within the nodes.
3. Promote spatial integration and township regeneration through the use of land banking and government land assets, and support for urban hubs.
4. Manage municipal urban growth by enforcing urban growth boundaries to reduce sprawl, manage infrastructure expenditure and ensure better socio-economic integration.
5. Expand and integrate municipal bus rapid transit (BRT) networks to achieve greater connectivity between major nodes and settlements with low levels of economic activity.
6. Enhance major road and rail networks, to ensure greater connectivity and a balanced provincial spatial network.
7. Provide multi-pronged sustained support to outlying residential areas including human capital development, mobility support and local economic development programmes.
8. Strengthen and enhance agricultural production and agro-processing to optimise the use of high-value agricultural land in the province, create jobs, grow the economy and improve food security.
9. Actively manage and protect the environment and eco-systems, including rehabilitating degraded areas and exploring legislating a provincial green belt.
10. Improve and optimise provincial tourism opportunities, through directing tourism-related activities to identified tourism areas, and creating strong links between tourism towns and surrounding eco-tourism opportunities.

The National Development Plan (NDP) and the Gauteng Spatial Development Framework (GSDF) have identified the N3 corridor as one of the main economic corridors in the country with a huge potential economic spinoff. The Lesedi SDF has also identified an "Economic Corridor" (the subject of the Lesedi Nodal & Corridor Study 2009) and a "Tourism Corridor" along the R42.

## **3) GAUTENG PROVINCIAL ENVIRONMENTAL MANAGEMENT FRAMEWORK 2014**

The Gauteng Provincial Environmental Management Framework (EMF) is a legal instrument in terms of the Environmental Management Framework Regulations, 2010. The purpose of the regulations is to assist environmental impact management including Environmental Impact Assessment (EIA) processes, spatial planning and sustainable development with the main objectives being as follow:

- To make it efficient for urban development (including associated service infrastructure) to occur in defined selected areas with lower environmental concerns and high development demand to help facilitate the implementation GMP, 2014;
- To facilitate the optimal use of current industrial, mining land and other suitable derelict land for the development of non-polluting industrial and large commercial developments;
- To protect Critical Biodiversity Areas (CBAs) within urban and rural environments;
- To ensure the proper integration Ecological Support Areas (ESAs) into rural land use change and development;
- To use ESAs as defined in municipal bioregional plans in spatial planning of urban open space corridors and links within urban areas; and
- To focus on the sustainability of development through the implementation of initiatives such as:

- energy efficiency programmes, plans and designs;
- waste minimisation, re-use and recycling;
- green infrastructure in urban areas; and
- Sustainable Drainage Systems (SuDS).

Figure 21 depicts the main proposals of the Gauteng EMF, including Agri-Hubs. Of relevance to the Sedibeng District is the following:

- The only Protected Areas or High Urban Control Zones (Zone 2) in the study area is the Suikerbosrand Nature Reserve between Meyerton and Heidelberg.
- The existing developed areas are earmarked as Zone 1 Urban Development Zones, where urban activities are streamlined (exempt from environmental assessment requirements), and infill and densification are promoted with the aim of minimising urban sprawl into rural areas.
- Large sections of the study area are earmarked as Zone 4 Normal Control Zone (outside the urban edge), where agricultural uses outside the urban development zone are protected.
- In the central parts of the study area there are areas earmarked as Zone 3 High Rural Control Zones, where sensitive areas should be protected.
- There are three large areas set aside for Agri-Hubs, where more sustainable and productive agricultural activities should be established. These are located to the east of Vanderbijlpark, between Vereeniging and Heidelberg and to the north-east of Heidelberg.

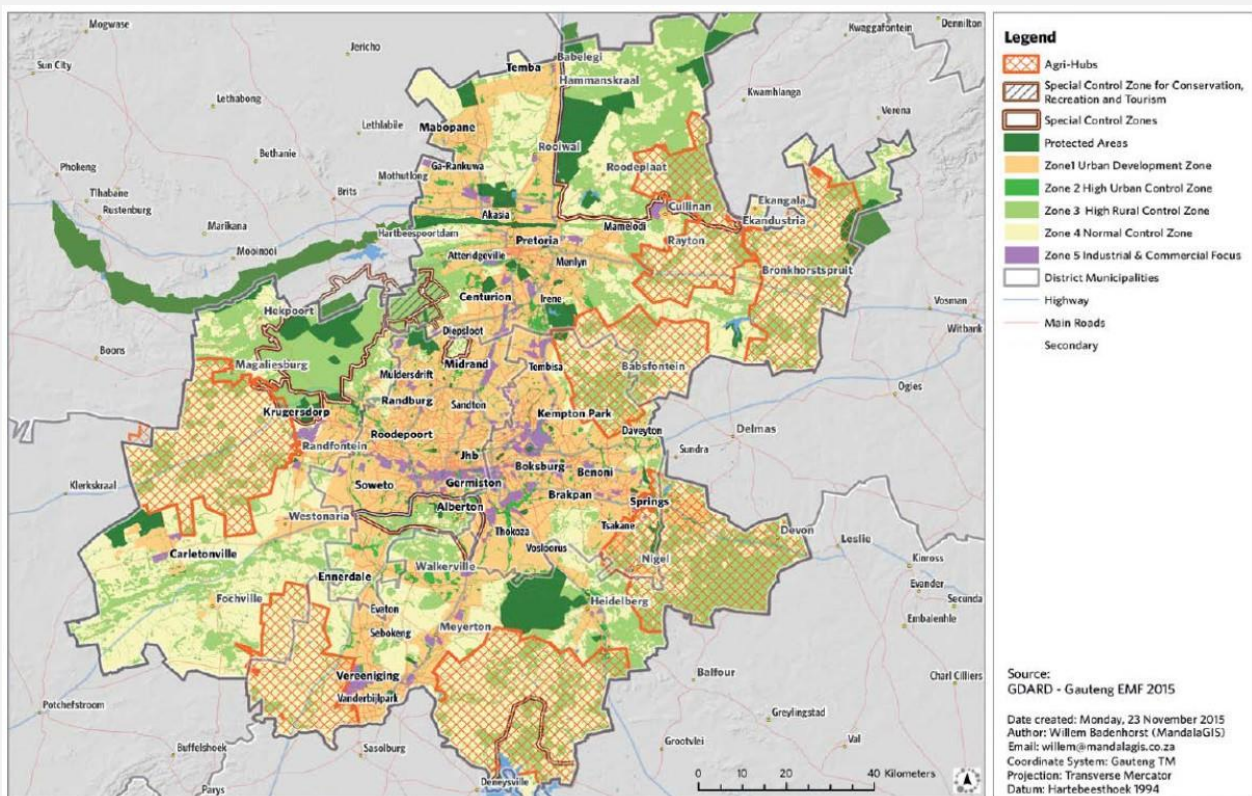


Figure 21: Gauteng Environmental Management Framework

#### 4) SEDIBENG DISTRICT MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK (MSDF) 2019

The Sedibeng District Municipality is committed to the alignment the district's plans in realization of the National Development Plan Vision 2030, Gauteng TMR approach and Sedibeng Growth Development Strategy (GDS1, 2 and 3). By commitment, the SDM have set for itself the following goals based on the challenges being faced in the District:

- Reinventing the Economy;
- Renewing Sedibeng communities;

- Reviving a Sustainable Environment;
- Reintegrating the region with its surrounds;
- Releasing Human Potential;
- Good and Financially Sustainable Governance; and
- Vibrant Democracy.

Long term catalytic projects which are called Southern Corridor Projects have been identified in partnership with both Sedibeng District Municipality and Local Municipalities. From the fourteen projects identified, three (3) have been selected as key catalysts to effect change in the immediate future within the SDM.

**Table 11: Selected immediate priority projects of the MSDF.**

Name	Impact	Location
Sedibeng Regional Sewer Scheme	Unlock residential and industrial development in the region and surrounding	Sedibeng Region
Sedibeng Fresh Produce Market	Provide food security and support local farmers. The market is located between the Johannesburg and Bloemfontein markets therefore it has the potential to serve communities situated between those two	Vereeniging
Sedibeng Government Precinct	Centralise services of all three tiers of Government as part of Urban Regeneration.	Vereeniging CBD

The most important aims of these flagships are the following:

- Creation of jobs, investments and promote tourism in the region
- Revitalise an attractive image for the region through Vaal 21 initiative
- Create wealth for the region
- Promote Heritage through commemorative events
- Improve transport infrastructure; and
- Encourage private investment

During the state of the province address (SOPA) 2014, the Gauteng provincial government re-emphasised that the Gauteng city region should be an integrated and globally competitive region. This means building cities that complement one another in creating functional economies. The purpose of the SEIDP is to develop a plan that would provide strategic direction in ensuring that Sedibeng is integrated into the Gauteng city region.

The rationale for Sedibeng EIDP is to address the structural, industrialisation and other economic development challenges of the southern corridor in an integrated approach which emphasises partnerships between government and the private sector to contend with the challenges of under-development and fragmented planning. The southern corridor encompassing the economy of the SDM and the creation of new industries, new economic nodes and new cities.

The SEIDP identified five strategic industry plans, namely:

1. The Sedibeng Transport and Logistic Hub;
2. The Sedibeng Building Equipment and Supply Hub;
3. The Sedibeng Iron and Steel Beneficiation Cluster;
4. The Sedibeng Green Economy and Agropolis; and
5. The Sedibeng Tourism City.

In terms of agriculture the following industry plans have a link with agriculture, namely:

- Sedibeng transport and logistic hub which would assist in linking the province to agricultural and mining regions, as well as urban centres and ports; and

- in order to grow the economy of the Sedibeng, a main focus should be the green economy, specifically through establishing the SDM as an Agropolis. This would assist the SDM to move away from an over reliance on the steel industry and become more involved in the agricultural industry. Establishing the SDM as an Agropolis, includes all aspect of farming and agro-processing.

In terms of spatial extent agriculture is the dominant land use in the Sedibeng DM covering an area of about 340 418 ha of land which represents about 81% of the total district area. Approximately 97 674 ha of the SDM area is under cultivation (crop farming), 4662 ha is irrigated and about 238 079 ha is utilised for grazing.

Farmers produce a variety of commodities within each of the local municipalities, of which their performance is very dependent on climatic conditions and may fluctuate from year to year. The following list indicates the dominant commodities within the SDM:

- Maize
- Grain
- Sorghum
- Wheat
- Soya
- Dried Beans
- Ground Nuts
- Sunflower Seeds
- Vegetables
- Milk
- Beef
- Pork/Goat
- Mutton
- Lamb
- Eggs
- Poultry

## E8. RECOMMENDATION OF THE 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 as bound by professional ethical standards and the code of conduct of EAPASA).

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:

**The environmental assessment should consider a holistic view of environmental management, that balances the imperatives of agriculture to sustain livelihoods and contribute to socio-economic development with the need to protect and minimise significant impacts on the natural environment and maintain ecosystem services.**

**Please see the Environmental Management Programme (EMPr) attached as Appendix H for further detail on mitigation measures. This BAR addresses a detailed analysis of the potential impacts associated with the proposed development of the Project. All specialist studies suggested that the proposed development can go ahead as no major impacts are expected to occur on site.**

This is the only land parcel that the applicant has and, in an effort, to achieve a balanced development future for the site, the option to identify potential areas of the site that are least sensitive and that can potentially be used for a fuel depot and a piggery, is considered justifiable. Also, the applicant operates an existing small-scale fuel depot and piggery on the site.

This proposed development (Map in Appendix A) will have an impact of low significance, provided that the mitigation measures proposed in this report and the EMPr are effectively implemented.

It is the opinion of the EAP that with effective implementation of the mitigation measures suggested in this BAR, the impacts can be managed and reduced to reasonable levels. It is therefore cautiously recommended by the EAP that the proposed development receive Environmental Authorisation, subject to the following conditions and mitigation measures:

- The EMPr of this proposed development must form part of the contractual agreement and be adhered to by both the contractors and the applicant.
- The recommendations of the specialists must be implemented.
- The applicant to ascertain that there is representation of the applicant on site, at all times of the project phases, ensuring compliance with the conditions of the EMPr and Environmental Authorisation thereof.
- A possible Waste Management Licence must be obtained for the storage of pig waste in the waste dam.
- A Water Use Licence must be obtained for the water usage associated with the piggery operations as well as the re-use of wastewater for fertilisation.

## E9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT

The Department of Environmental Affairs (DEA) published a Guideline on Need and Desirability (2017) in terms of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended). The key components are listed and discussed below:

- Securing ecological sustainable development and use of natural resources; and
- Promoting justifiable economic and social development.

### **Ecological sustainable developments and use of natural resources:**

The section proposed has been ecologically assessed and found to be degraded with no natural vegetation present on the area. The specialist found that the study area is situated in an area of national conservation importance namely the Critically Endangered Blesbokspruit Highveld Grassland ecosystem. However, based on the site visit, the site does not support any significant indigenous vegetation and neither the vegetation type nor the ecosystem will be represented on site. The development will not result in significant loss in biodiversity and all impact can be mitigated.

### **Promoting justifiable economic and social development:**

Community/society priorities are officially expressed through public documents including the provincial growth and development strategy and spatial development framework documents. The proposed project will benefit society and the surrounding communities both directly and indirectly by providing job security at the proposed operation within the area proposed. Direct economic benefits will be derived from wages, taxes and profits. Indirect economic benefits will be derived from the procurement of goods and services and the spending power of employees.

According to DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs, to describe the need for a development, it must be determined whether it is the right time for locating the type of land use and/or activity being proposed. To describe the desirability for a development, it must be determined, whether it is the right place for locating the type of land use and/or activity being proposed. Need and desirability can be equated to the concept of wise use of land which can be determined through asking the question: "what is the most sustainable use of land?" Considering the above, the need and desirability of an application must be addressed separately and in detail answering inter alia the questions listed in Table 12 overleaf.

The following is specifically applicable to the operations:

#### **Need:**

The South African Pork Producers Organization (SAPPO) and the European Union has issued new regulations to be implemented in 2020. These new laws have been drawn up in conjunction with veterinary services, government and other role-players and compare favourably with International welfare standards.

**Desirability:**

There will be many more additional advantages over and above those numerous items mentioned.

- Ammonia levels and other harmful gases will be reduced through modernized rations, better genetics, and improved facilities.
- Odours will be reduced as we do away with open manure channels, solid flooring. Improved facilities in buildings and handling will minimize odours.
- Flies and others will be greatly reduced as a result of modern designs and minimizing “breeding places”.
- Dust will be reduced as a result of modern feed systems and passaged walkways.
- Noise will be reduced as a result of continuous “AD LIB” feed availability and less stress at feeding and other times.

**Table 12: Need and Desirability of the proposed development in terms of the Department of Environmental Affairs (DEA) Guideline on Need and Desirability (2017)**

Questions	Answer
<b>Securing ecological sustainable development and use of natural resources:</b>	
<p>How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?</p> <p>How were the following ecological integrity considerations taken into account?</p> <p>1.1.1 Threatened Ecosystems,</p> <p>1.1.2 Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure,</p> <p>1.1.3 Critical Biodiversity Areas (“CBAs”) and Ecological Support Areas (“ESAs”),</p> <p>1.1.4 Conservation targets,</p> <p>1.1.5 Ecological drivers of the ecosystem,</p> <p>1.1.6 Environmental Management Framework,</p> <p>1.1.7 Spatial Development Framework, and</p> <p>1.1.8 Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).</p>	<p>The DEA website has an EIA Screening Tool, and the Gauteng Conservation Plan (C-Plan) was used show the corresponding sensitivity within its available GIS layers for Holding 230 and 233. The site overlaps with the Critically Endangered Blesbokspruit Highveld Grassland ecosystem.</p> <p>An ecological survey/screening was also done by a specialist and the site visit conducted by Dr Kasl confirmed that the site does not support any significant indigenous vegetation and neither the vegetation type nor the ecosystem was present on site.</p> <p>Refer to the Terrestrial Biodiversity Compliance Statement completed by Iggdrasil Scientific Services (Pty) Ltd. (26 November 2020) attached to this application.</p>
<p>1.2 How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<p>Impacts predicted for the development are low. No wetlands were recorded on the study site, or within 500 m of the proposed site and no sensitive terrestrial fauna and flora occur on site. General impacts, such as dust, noise, etc. have been covered within the Environmental Management Programme (EMPr – Appendix H) proposed for the activities. Several mitigation measures and monitoring features have been included in the EMPr to ensure minimal and managed operation of the footprint area designed for the piggery and fuel depot development. The management and removal of alien vegetation may have positive benefits on the current state of the environment as it has been severely degraded by anthropogenic activities.</p>

Questions		Answer
1.3	How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	<p>As mentioned, the current site has been severely degraded by the activity of humans and existing small-scale pig farming and fuelling practices occur on site. Some alien invasive species occur on site and most of the natural habitat and diversity has been lost.</p> <p>Mitigation and management measures prescribed in the EMPr will aid to avoid and lower any possible impacts that may result from the development.</p> <p>The wetland assessment indicated that the site has been used for small holdings and small-scale agriculture and farming from as early as 1955. No wetlands were recorded on the study site, or within 500 m of the proposed site therefore no rehabilitation and monitoring programme will be required for wetlands. Alien and Invasive Monitoring and vegetation establishment along areas requiring rehabilitation will be included in the EMPr as well as the prevention and repair of eroded site, stormwater management measures etc. All of these may have positive impacts on the ecological environment.</p>
1.4	What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?	<p>All waste generated will be disposed of to a licensed landfill facility, either by contractor or municipal service. Other wastes that may cause soil contamination are associated with hydrocarbon spills and piggery waste. Regulations for prevention and management have been prescribed in the EMPr (<b>Appendix H</b>).</p> <p>Municipal water and sanitation will be utilised to prevent other waste from entering the natural environment.</p>
1.5	How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	<p>A specialist heritage study was conducted for the project and no areas of concern were found.</p>
1.6	How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and	<p>The fuel depot will make use of hydrocarbon products and this will be sold as petrol, oil, or diesel. The utilisation of the national supplies cannot be reversed; however, the products will be bought, and economic growth will result.</p> <p>Through implementing good practice environmental management measures and mitigation measures, it will ensure that both human and environment are not negatively affected by the development.</p>



Questions		Answer
	remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	No wetlands were recorded on the study site, or within 500 m of the study area, therefore, no offset strategies will be required for the water uses (Section 21(c) and (i) water uses) as they have been subjected to a Risk Assessment as prescribed by DHSWS. The impact is considered to be Low and no wetland will be lost as a result of activities.
1.7	<p>How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?</p> <p>1.7.1. Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life).</p> <p>1.7.2. Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources and the proposed development alternative?)</p> <p>1.7.3. Do the proposed location, type and scale of development promote a reduced dependency on resources?</p>	No renewable natural resources are relevant to this development.
1.8	<p>How were a risk-averse and cautious approach applied in terms of ecological impacts?</p> <p>1.8.1 What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</p> <p>1.8.2 What is the level of risk associated with the limits of current knowledge?</p>	<p>The environmental risk assessment for all environmental features has been included within Section E.</p> <p>A Terrestrial Ecological, Wetland and Heritage specialist study was completed for the project to ensure the impacts of these aspects have been properly assessed and will be catered for within the Environmental Management Programme (EMPr – Appendix H).</p>

Questions		Answer
	1.8.3 Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	Additional studies included Geohydrological assessment and Civil design for the layout and features of the fuel depot and piggery.
1.9	<p>How will the ecological impacts resulting from this development impact on people's environmental right in terms following.</p> <p>1.9.1 Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</p> <p>1.9.2 Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?</p>	<p><u>Possible negative features:</u> Noise, dust and visual pollution can slightly increase if managed incorrectly. Possibly water pollution, if impacts are not managed effectively, but with the proper mitigation and good practice environmental management measures, it will result in minimal impacts. These impacts will be assessed, and detailed prevention and mitigation measures will be recommended within the EMPr (<b>Appendix H</b>).</p> <p><u>Possible positive features:</u> The development will improve access to services, it will be at a walking distance for some residents and provide employment opportunities.</p>
1.10	Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?	Ecological aspects and specialist impact assessments have been included in the document and risk assessments utilised to guide the Environmental Management Programme.
1.11	Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	The Environmental risk assessment for all environmental features has been included within Section E. As mentioned, the natural environment and features associated with the area has been degraded and natural functioning lost.
1.12	Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	A Wetland, Ecological, Heritage, and Geohydrological specialist study were completed for the project to ensure the impacts of these aspects have been properly assessed and will be catered for within the Environmental Management Programme (EMPr – Appendix H).
1.13	Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	Cumulative impacts may be the accumulation of all the existing, historic and proposed activities which may result in negative impacts, however, since the site is vastly degraded, cumulative negative impacts as a result of the piggery and fuel depot, will be low.
<b>Promoting justifiable economic and social development:</b>		

Questions		Answer
2.1	<p>What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?</p> <p>2.1.1 The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area,</p> <p>2.1.2 Spatial priorities and desired spatial patterns (e.g. need for integrated or segregated communities, need to upgrade informal settlements, need for densification, etc.),</p> <p>2.1.3 Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and</p> <p>2.1.4 Municipal Economic Development Strategy ("LED Strategy").</p>	<p>The District is reported to portray high levels of unemployment (30%) and poverty (64%), and the Lesedi Municipality accounting for a 29.5% unemployment rate among the economically active sector of the community. Commercial agriculture is regarded as the biggest land use within the Municipality, which includes small holding agricultural land that takes up a total area of approximately 6473 ha of the Municipality.</p> <p>Overall information provided in the SDF indicates that potential opportunities for SMME's using agriculture and agro-processing are high, considering that the Municipality and District is faced with a high unemployment rate. This would provide some form of relief to households that are at risk of hunger and marginalization. Therefore, the development of a piggery and fuel depot along an undeveloped route and within a rural undeveloped area would align with the mission statement and issues identified by stimulating growth and developing within an area and creating a service and job opportunities to be utilised close to a low-cost housing/informal housing area.</p>
2.2	<p>Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</p> <p>2.2.1. Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?</p>	<p>Also refer to the comments made above.</p> <p>The proposed project will benefit society and the surrounding communities both directly and indirectly by providing job security at the proposed operation. Direct economic benefits will be derived from wages, taxes and profits. Indirect economic benefits will be derived from the procurement of goods and services and the spending power of employees.</p> <p>The project will make use of local workers and service providers and this must be kept record of to ensure the local economic development (as prescribed in the EMPr).</p>
2.3	<p>How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?</p>	<p>Refer to comments made above. All aspects and comments received from I&amp;APs during the process will be reasonably addressed and incorporated into the final BAR submitted to GDARD. Local economic growth and work opportunities will be the main benefits from the project if approved and may address some of the physical, psychological, development, cultural and social needs.</p>
2.4	<p>Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?</p>	<p>The main benefits of the proposed project are:</p> <ul style="list-style-type: none"> <li>• Direct economic benefits will be derived from wages, taxes and profits. Indirect economic benefits will be derived from the procurement of goods and services and the spending power of employees;</li> </ul>

Questions		Answer
		<ul style="list-style-type: none"> <li>• Extending services into a previously disadvantaged area where there is no close fuel depot, shop and facilities along route;</li> <li>• Job creation for a number of employees and their families;</li> <li>• Implementation of the proposed project could result in skills development;</li> <li>• It contributes to the economic welfare of the surrounding community by creating working opportunities;</li> <li>• It contributes to the upliftment of living standards and the health and safety of the local community.</li> </ul> <p>The project is aligned with the national objectives such as:</p> <ul style="list-style-type: none"> <li>• To promote economic growth and in the Republic</li> <li>• To promote employment and advance the social and economic welfare which will specifically benefit the surrounding community found within the area.</li> </ul>
2.5	<p>In terms of location, describe how the placement of the proposed development will;</p> <p>2.5.1. result in the creation of residential and employment opportunities in close proximity to or integrated with each other,</p> <p>2.5.2. reduce the need for transport of people and goods,</p> <p>2.5.3. result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),</p> <p>2.5.4. compliment other uses in the area,</p> <p>2.5.5. be in line with the planning for the area,</p> <p>2.5.6. for urban related development, make use of underutilised land available with the urban edge,</p> <p>2.5.7. optimise the use of existing resources and infrastructure,</p> <p>2.5.8. opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),</p> <p>2.5.9. discourage "urban sprawl" and contribute to compaction/densification,</p>	<p>Alternatives have been assessed during the process and the proposed site falls within an undeveloped rural area which will benefit the surrounding housing by means of closer services, provision of meat, reduce the need for transport to obtain these and other items; make use of underutilised land as the area have been found to be degraded.</p> <p>The area identified has special locational features for a fuel depot development and perfect location with no other formal land uses, underutilised land on a corner near a busy road where fuel provision will be beneficial. An existing small-scale piggery and fuel depot is on site.</p>

Questions		Answer
	<p>2.5.10. contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,</p> <p>2.5.11. encourage environmentally sustainable land development practices and processes</p> <p>2.5.12. take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),</p> <p>2.5.13. the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),</p> <p>2.5.14. impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and</p> <p>2.5.15. in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?</p>	
2.6	<p>How were a risk-averse and cautious approach applied in terms of socio-economic impacts?</p> <p>2.6.1. What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</p> <p>2.6.2. What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?</p> <p>2.6.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</p>	Gaps and limits in knowledge have been given within the document.
2.7	<p>How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following:</p> <p>2.7.1. Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</p> <p>2.7.2. Positive impacts. What measures were taken to enhance positive impacts?</p>	Refer to all other aspects regarding the Socio-Economic environment, benefits and disadvantages. All of the relevant aspects have also been addressed within the BAR and may be viewed within the Impact Assessment, Management and Mitigation tables as contained within this document.

Questions		Answer
2.8	Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?	<p>These areas in question have been transformed as mentioned by anthropogenic aspects resulting in the current environmental situation where little indigenous vegetation is remaining and the site is covered with NEMBA Invasive species that needs to be controlled and/or removed.</p> <p>The development of this section will not affect livelihoods and ecosystem services related to the footprint area.</p> <p>Other impacts such as air quality impacts and noise may affect neighbouring properties and these will be mitigated to a Low impact as per mitigation and monitoring measures described within the EMPr.</p>
2.9	What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	<p>Health and Safety considerations, such as the underground storage of the fuel tanks and fire prevention aspects have been considered. The piggery also consists of various health risks to both human and animal. These were taken into consideration and is discussed in the EMPr.</p> <p>No other socio-economic considerations are relevant, except for work creation of local communities within the area, but these will be same for any footprint chosen associated with this area.</p>
2.10	What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	<p>Refer to comments made above. All alternative scenarios have been discussed within Section A3 and Section B.</p>
2.11	What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	<p>The main benefits of the proposed development are:</p> <ul style="list-style-type: none"> <li>• Direct economic benefits will be derived from wages, taxes and profits. Indirect economic benefits will be derived from the procurement of goods and services and the spending power of employees;</li> <li>• Extending the availability of items available from the convenience store to an area where such items were not readily available without going into town;</li> <li>• It contributes to the economic welfare of the surrounding community by creating working</li> </ul>

Questions		Answer
		<p>opportunities;</p> <ul style="list-style-type: none"> <li>• It contributes to the upliftment of living standards and the health and safety of the local community.</li> </ul> <p>The project is aligned with the National objectives:</p> <ul style="list-style-type: none"> <li>• To promote economic growth in the Republic;</li> <li>• To promote employment and advance the social and economic welfare of all South Africans.</li> </ul>
2.12	What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	All impacts have been assessed according to a Risk Matrix and included within this report. Mitigation and Management measures are prescribed for every possible impact which may result from the proposed development being granted.
2.13	<p>What measures were taken to:</p> <p>2.13.1. ensure the participation of all interested and affected parties,</p> <p>2.13.2. provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation,</p> <p>2.13.3. ensure participation by vulnerable and disadvantaged persons,</p> <p>2.13.4. promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means,</p> <p>2.13.5. ensure openness and transparency, and access to information in terms of the process,</p> <p>2.13.6. ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and</p> <p>2.13.7. ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein will be promoted?</p>	<p>Refer to Section C of the report. Public Participation will be conducted in accordance with the guidelines and regulations, starting end on the 4<sup>th</sup> of February 2021. All comments received during this timeframe will be incorporated into the BAR.</p> <p>Refer to Appendix E for all information regarding the PPP until the drafting of this report.</p>
2.14	Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that	Refer to comments made above.

Questions		Answer
	is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?	
2.15	What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	An Environmental Policy and a Health and Safety Policy, which will regulate activities, will be drafted by the applicant. All workers and contractors will need to abide to the policies and framework as specified.
2.16	Describe how the development will impact on job creation in terms of, amongst other aspects: 2.16.1. the number of temporary versus permanent jobs that will be created, 2.16.2. whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area), 2.16.3. the distance from where labourers will have to travel, 2.16.4. the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and 2.16.5. the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).	Refer to comments made above. Since the development is for a fuel depot and piggery, closure of this activity is not foreseen in the long run. The applicant will likely continue with the activity by means of re-applying for authorisation by the end of its authorisation.  The land is currently used for small-scale agriculture (pig farming) and a fuel depot; therefore it may be argued that the development will be a beneficial long-term land use. Also, the area in question is currently a largely rural area and development in general might increase in the area within the future. Within the current situation, the fuel depot will be an ideal and strategic point to stop between development clusters.
2.17	What measures were taken to ensure: 2.17.1. that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and 2.17.2. that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	The applicant is in application for the following aspects across different legislation requirements: <ul style="list-style-type: none"> <li>• EA (GDARD)</li> <li>• All legislation which has been incorporated within these processes were discussed within Section A2: Applicable Legislation, Policies and/or Guidelines above.</li> </ul> A WULA (DHSWS Gauteng) application should be applied for.
2.18	What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?	Refer to comment above as these aspects have already been addressed within previous discussions.



Questions		Answer
2.19	Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	Yes, all impacts have been addressed optimally.
2.20	What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	Mitigation and management measures have been described for all environmental aspects identified and is incorporated into the EMPr ( <b>Appendix H</b> ).
2.21	Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	Alternatives and analysis have already been addressed above, refer to comments made.
2.22	Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	Refer to comments made above regarding positive and negative socio-economic impacts. Cumulative impacts have been discussed where relevant and are not easily accurately quantifiable.

**E10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED**

*(CONSIDER WHEN THE ACITIVITY IS EXPECTED TO BE CONCLUDED)*

The Environmental Authorisation is required for a minimum of 25 years.

**E11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)**

(must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached

YES

## SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

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) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

**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.

**APPENDIX A: SITE PLAN(S)**

## APPENDIX B: PHOTOGRAPHS

## APPENDIX C: FACILITY ILLUSTRATION(S)

## APPENDIX D: ROUTE POSITION INFORMATION

## APPENDIX E: PUBLIC PARTICIPATION INFORMATION



**APPENDIX E1: PROOF OF SITE NOTICE**

**APPENDIX E2: WRITTEN NOTICES ISSUED AS REQUIRED IN TERMS OF THE REGULATIONS**

## APPENDIX E3: PROOF OF NEWSPAPER ADVERTISEMENTS

**APPENDIX E4: COMMUNICATIONS TO AND FROM INTERESTED AND  
AFFECTED PARTIES**

**APPENDIX E5: MINUTES OF ANY PUBLIC AND/OR STAKEHOLDER MEETINGS**

## APPENDIX E6: COMMENTS AND RESPONSES REPORT

**APPENDIX E7: COMMENTS FROM I&APS ON BASIC ASSESSMENT (BA) REPORT**

**APPENDIX E8: COMMENTS FROM I&APS ON AMENDMENTS TO THE BA REPORT**



**APPENDIX E9: COPY OF THE REGISTER OF I&APS**

**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

## APPENDIX I1: EAP CURRICULUM VITAE

## APPENDIX I2: DEA SCREENING TOOL REPORT