

053 963 1081  
018 011 1925  
072 998 6008

087 231 7021  
info@milnex-sa.co.za

4 Botha Street  
SCHWEIZER-RENEKE

Waterberry Street,  
Waterberry Square,  
1st floor, Office 7  
POTCHEFSTROOM

C/o Welgevonden &  
Memorial Street,  
Roylglen Office Park  
KIMBERLEY

[www.milnex-sa.co.za](http://www.milnex-sa.co.za)

## DRAFT SCOPING REPORT

# THE PROPOSED DEVELOPMENT AND OPERATION OF A CATTLE FEEDLOT AND ASSOCIATED ABATTOIR AND RENDERING PLANT ON PORTION 40 OF THE FARM EIGENAARSFONTEIN 442, REGISTRATION DIVISION IQ, WITHIN THE JB MARKS LOCAL MUNICIPALITY, NORTH-WEST PROVINCE.

<b>NAME OF APPLICANT</b>	Mr Wildrick Steynberg
<b>PREPARED BY</b>	Milnex CC
<b>TEL NO</b>	(018) 011 1925
<b>FAX NO</b>	087 231 7021
<b>POSTAL ADDRESS:</b>	P.O. Box 1086, Schweizer-Reneke, 2780
<b>PHYSICAL ADDRESS:</b>	4 Botha Street, Schweizer-Reneke, 2780
<b>DEDECT REFERENCE NUMBER:</b>	N/A

## PROJECT INFORMATION

**Project Name:** Environmental Impact Assessment for the proposed development and operation of a cattle feedlot and associated abattoir and rendering plant on Portion 40 of the Farm Eigenaarsfontein 442, Registration Division IQ, within the JB Marks Local Municipality, North West Province.

**Report Title:** Draft Scoping Report



**Prepared By:** Milnex CC

**Date:** April 2023

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### QUALITY CONTROL:

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	<b>Report Author:</b>	<b>Report Reviewer:</b>
	Deshney Mapoko	Christiaan Baron
<b>Name:</b>	National Diploma in Environmental Science (refer to Appendix 1) Registered EAP (EAPASA)	Master's Degree in Environmental Management Registered EAP (EAPASA)
<b>Signature:</b>		

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### **The DEA screening tool was used in compiling this document**

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*The Public Participation Process (PPP) must follow Regulation 41 of NEMA EIA Regulations; thus, the process needs to be transparent. However, due to the Protection of Personal Information Act (POPI Act) which commenced on 01 July 2021, Stakeholders, Landowners, surrounding landowners and registered I&AP'*

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*addresses, contact details and comments will not be included in any draft report to be circulated. All this information will form part of the final report to be submitted to the Competent Authority only.*

*Should you be identified as a Stakeholder, Landowner, Surrounding landowner and you do not wish to receive any further communique from Milnex CC regarding the application in question, you may request in writing that your details be removed from the Milnex CC database for this application.*

## **OBJECTIVE OF THE SCOPING PROCESS**

The objective of the scoping process is to, through a consultative process—

- (a) identify the relevant policies and legislation relevant to the activity;
- (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- (c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- (e) identify the key issues to be addressed in the assessment phase;
- (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- (g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

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## SCOPING REPORT

### A. DETAILS OF:

- i) The EAP who prepared the report
- ii) Expertise of the EAP

Name of Practitioner	Qualifications	Contact details
Deshney Mapoko	National Diploma in Environmental Science (refer to <b>Appendix 1</b> ) Registered EAP (EAPASA)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: <a href="mailto:deshney@milnex-sa.co.za">deshney@milnex-sa.co.za</a>

Contact details of Milnex CC	Qualifications	Contact details
Lizanne Esterhuizen	Honours Degree in Environmental Science (refer to <b>Appendix 1</b> ) Registered EAP (EAPASA)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: <a href="mailto:lizanne@milnex-sa.co.za">lizanne@milnex-sa.co.za</a>
Andile Nxumalo	Honours Degree in Environmental Science (refer to <b>Appendix 1</b> ) Registered EAP (EAPASA)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: <a href="mailto:andile.grant@milnex-sa.co.za">andile.grant@milnex-sa.co.za</a>
Christiaan Baron	Master's Degree in Environmental Management (refer to <b>Appendix 1</b> ) Registered EAP (EAPASA)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: <a href="mailto:christiaan@milnex-sa.co.za">christiaan@milnex-sa.co.za</a>

### Summary of the EAP's past experience. (Attach the EAP's curriculum vitae as **Appendix 2**)

Milnex CC was contracted by **Mr Wildrick Steynberg** as the independent environmental consultant to undertake the Scoping and EIA process for the proposed development and operation of a cattle feedlot and associated abattoir and rendering plant on Portion 40 of the Farm Eigenaarsfontein 442, Registration Division IQ, within the JB Marks Local Municipality, North West Province.

Milnex CC is a specialist environmental consultancy with extensive experience in the mining industry which provides a holistic environmental management service, including environmental assessment and planning to ensure compliance with relevant environmental legislation. Milnex CC benefits from the pooled resources, diverse skills and experience in the environmental and mining field held by its team that has been actively involved in undertaking environmental studies

for a wide variety of mining related projects throughout South Africa. The Milnex CC team has considerable experience in environmental impact assessment and environmental management, especially in the mining industry.

Milnex CC has extensive consulting experience in the environmental field. Their key focus is on environmental assessment, advice and management and ensuring compliance to legislation and guidelines. They are currently involved in undertaking EIAs for several projects across the country (refer to **Appendix 2** for CV).

## B. THE LOCATION OF THE ACTIVITY:

<b>Farm Name:</b>	Portion 40 (Remainder) of the Farm Eigenaarsfontein 442
<b>Application area (Ha)</b>	Feedlot: Approximately 10 Hectares Rendering plant, abattoir & infrastructure – Not more than 5 hectares  The property consists of an area of approximately 225.842Ha
<b>Magisterial district:</b>	JB Marks Local Municipality Dr Kenneth Kaunda District Municipality
<b>Registration Division</b>	IQ
<b>Distance and direction from nearest town</b>	The property is located approximately 50km to the West of Potchefstroom.
<b>21 digit Surveyor General Code for each farm portion</b>	TOIQ00000000044200040

### (iii) Farms Co-ordinates:

Farm		Latitude	Longitude
Portion 40 (Remainder) of the Farm Eigenaarsfontein 442	0	26°39'33.55"S	27°28'32.38"E
	1	26°39'34.66"S	27°28'44.91"E
	2	26°39'30.37"S	27°28'44.60"E
	3	26°39'28.77"S	27°29'7.31"E
	4	26°40'59.75"S	27°29'15.04"E
	5	26°40'54.56"S	27°28'47.44"E

## C. LOCALITY MAP (show nearest town, scale not smaller than 1:250000 attached as Appendix 3).

A Locality map is attached in **Appendix 3** and on figure 1 below.

# LOCALITY MAP

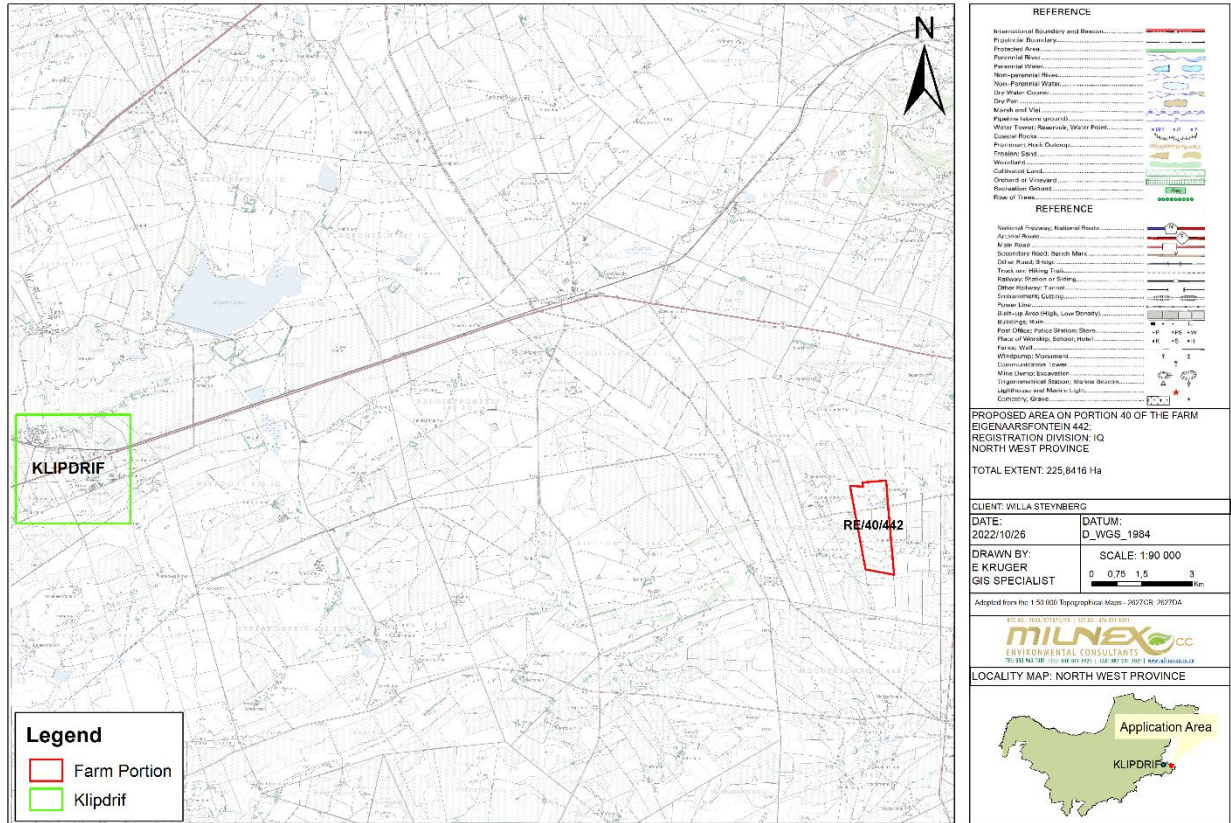


Figure 1: Locality map

Refer to Site Plan included within Appendix 4.

# SITE LAYOUT MAP

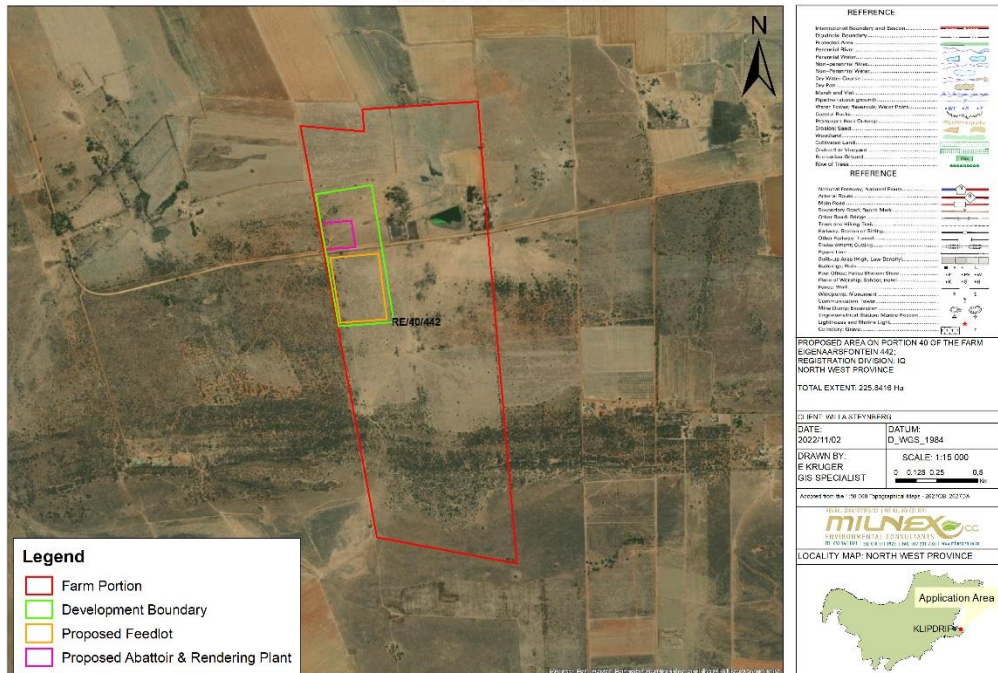


Figure 2: Site Plan



## D. DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY.

- (i) Listed and specified activities

### Listing Notices: 2017 Regulations as amended

Listed activity as described in GN R.324, 325 and 327	Description of project activity that triggers listed activity
<p><b>Government Notice 327</b>  <b>Listing Notice 1: Activity 3:</b> The development and related operation of facilities or infrastructure for the slaughter of animals with a (ii) product throughput of reptiles, game &amp; red meat exceeding 6 units per day.</p>	<p>The abattoir will be developed to slaughter approximately 120 cattle per day.</p>
<p><b>Government Notice 327</b>  <b>Listing Notice 1: Activity 4:</b> The development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed-            (i) 20 square metres per large stock unit and more than 500 units per facility;</p>	<p>The cattle feedlot will at full capacity be filled with 10 000 cattle over time.</p>
<p><b>Government Notice 327</b>  <b>Listing Notice 1 Activity 27:</b>            The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is require for –            (i) the undertaking of a linear activity; or            (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The feedlot will cover an area of approximately 10 hectares.</p> <p>The abattoir &amp; the associated rendering plant will cover an area not more 5 hectares.</p> <p><b>Rendering Plant (The rendering plant will be authorized under the National Environmental Management Air Quality Act (Act No. 39 of 2004), but the footprint of the rendering will have to be authorized under this application</b></p>
<p><b>Government Notice 325</b>  <b>Listing Notice 2 Activity 6:</b> The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—</p>	<p>The rendering plant has a capacity of 450kg and will run 8 cycles a day.</p> <p>The daily tonnages will thus exceed 1 ton per day, and as a result an Air Emissions License is needed.</p>

<p>(i) activities which are identified and included in Listing Notice 1 of 2014;</p> <p>(ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;</p> <p>(iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or</p> <p>(iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.</p>	<p><b>Rendering Plant (The rendering plant will be authorized under the National Environmental Management Air Quality Act (Act No. 39 of 2004), but the footprint of the rendering will have to be authorized under this application</b></p>
<p><b>Government Notice 324</b></p> <p><b>Listing Notice 3 Activity 4:</b> The development of a road wider than 4 meters with a reserve less than 13,5 meters (h) North West</p> <p>(ii) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.</p>	<p>Small Access roads will be constructed within the CBA area &amp; Threatened ecosystem to access the feedlot, abattoir &amp; associated rendering plant.</p> <p><b>Rendering Plant (The rendering plant will be authorized under the National Environmental Management Air Quality Act (Act No. 39 of 2004), but the footprint of the rendering will have to be authorized under this application, but the footprint of the rendering will have to be authorized under this application.</b></p>
<p><b>Government Notice 324</b></p> <p><b>Listing Notice 3 Activity 12:</b> The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (h) North West (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority (v) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p>	<p>The feedlot will cover an area of approximately 10 hectares.</p> <p>The abattoir &amp; the associated rendering plant will cover an area not more 5 hectares.</p> <p>The area falls within a CBA area, and the vegetation unit predominant on site is the threatened Rand Highveld Grassland.</p> <p><b>Rendering Plant (The rendering plant will be authorized under the National Environmental Management Air Quality Act (Act No. 39 of 2004), but the footprint of the rendering will have to be authorized under this application, but the footprint of the rendering will have to be authorized under this application.</b></p>

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m <sup>2</sup>	LISTED ACTIVITY  (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE  (GNR 324, GNR 325 or GNR 326)	WASTE MANAGEMENT AUTHORISATION  (Indicate whether an authorisation is required in terms of the Waste Management Act)  (Mark with an X)
<p><b>The clearance of indigenous vegetation, and the development of an abattoir</b></p> <p><b>Government Notice 327 Listing Notice 1 Activity 3:</b> The development and related operation of facilities or infrastructure for the slaughter of animals with a (ii) product throughput of reptiles, game &amp; red meat exceeding 6 units per day.</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 327 Listing Notice 1 Activity 3</p>	<p>-</p>
<p><b>The construction and operation of a cattle feedlot</b></p> <p><b>Government Notice 327 Listing Notice 1: Activity 4:</b> The development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed-</p> <p>(i) 20 square metres per large stock unit and more than 500 units per facility;</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 327 Listing Notice 1 Activity 4</p>	<p>-</p>

<p><b>The clearance of indigenous vegetation</b></p> <p><b>Government Notice 327 Listing Notice 1: Activity 27:</b> The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is require for –</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 327 Listing Notice 1 Activity 27</p>	
<p><b>Construction and operation of a rendering plant</b></p> <p><b>Government Notice 325 Listing Notice 2 Activity 6:</b> The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—</p> <p>(i) activities which are identified and included in Listing Notice 1 of 2014;</p> <p>(ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;</p> <p>(iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 325 Listing Notice 2 Activity 6</p>	

<p>(iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.</p>				
<p><b>Construction of a road</b></p> <p><b>Government Notice 324 Listing Notice 3 Activity 4:</b> The development of a road wider than 4 meters with a reserve less than 13,5 meters (h) North West (ii) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 324 Listing Notice 3 Activity 4(h)(ii)(iv)</p>	
<p><b>The clearance of indigenous vegetation</b></p> <p><b>Government Notice 324 Listing Notice 3 Activity 12:</b> The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (h) North West (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority (v) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p>	<p>Feedlot: Approximately 10 Hectares</p> <p>Rendering plant, abattoir &amp; infrastructure – Not more than 5 hectares</p>	<p>X</p>	<p>Government Notice 324 Listing Notice 3 Activity 12(h)(iv)(v)</p>	

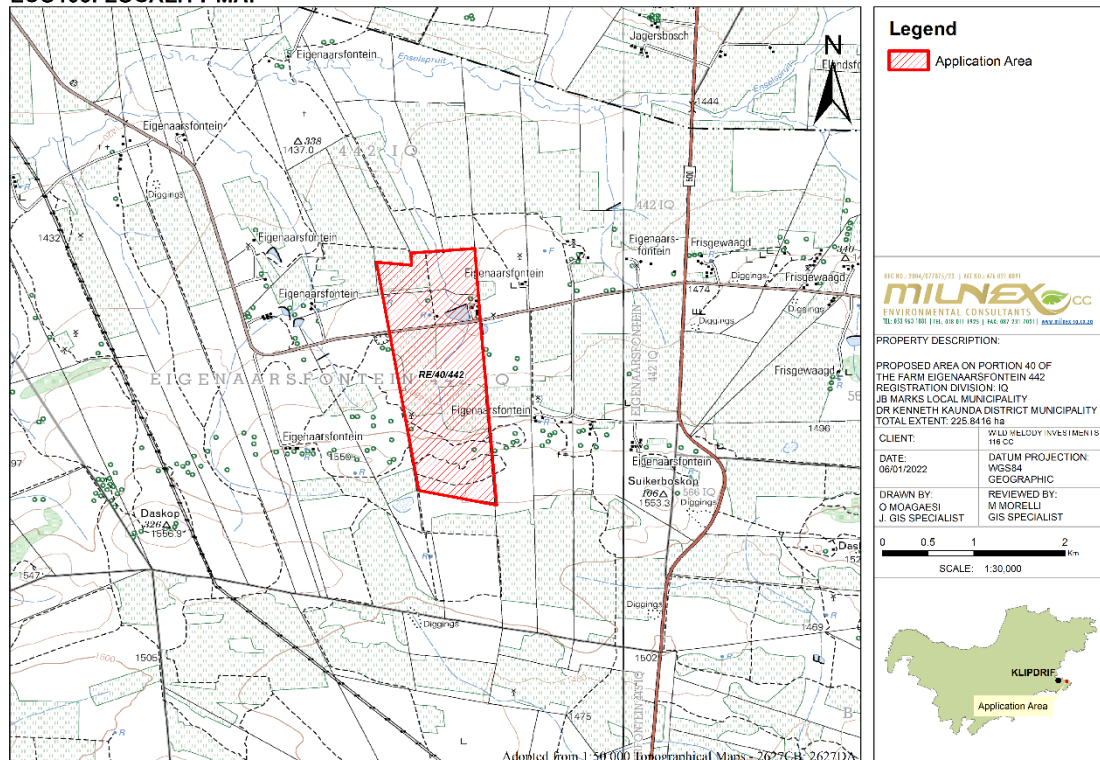
(ii) Description of the activities to be undertaken, including associated structures & infrastructure

Mr Willa Steynberg intends to develop and operate a cattle feedlot up to an amount of 10 000 cattle. It is intended that 100 pens will be constructed at a length of 40m and a width of 25m each. Each pen will be able to take the capacity of 100 cows. To populate the pens with cows will commence gradually.

Once the feedlot is at the capacity of 4500 cattle the associated abattoir will be constructed and it will be financially viable to slaughter the cows for the intended market. The abattoir will be approximately 122m in length and 97m in width.

All the activities will be situated on portion 40 of the farm Eigenaarsfontein 442, Registration Division IQ. See the locality map below.

ECO105: LOCALITY MAP



Current infrastructure:

- A current feedlot (constructed before 1998 and less than 500 cattle)
- 4 boreholes
- 1 x 20 000 L tank
- 1 x 10 000 L tank
- Small cement dam

Infrastructure to develop:

**Feedlot:**

- 100 pens (25m x 40m each)
- Access/service roads to access the pens
- Manure stockpile area

**Abattoir** (Including but not limited to)

- Cattle waiting room
- Dirty feet, Heads & Hides rooms
- Manure/bloodline and associated Manure tank
- Compressors room
- Deboning rooms
- Pre Chiller rooms
- Chiller rooms
- Freezer rooms
- Beef dispatch area
- Cushion docking stations
- Dispatch office
- Factory shop
- Workshop, equipment, maintenance room
- Biltong room

**- Rendering Plant (The rendering plant will be authorized under the National Environmental Management Air Quality Act (Act No. 39 of 2004).**

**Water uses:**

A total volume of 199 33.8m<sup>3</sup>/a of water will be abstracted from the boreholes on site for the applied activities.

The process of applying for a Water Use License in terms of the National Water Act (Act No 36 of 1998) (reference; WU26842.) is also underway. Water uses that will be applied for include:

**S21(a)-** Taking water from a water resource

**S21(b)-** The storing of water

**S21(c)-** Impeding or diverting the flow of water in a watercourse;

**S21(e)-** Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);

**S21(g)-** Disposing of waste in a manner which may detrimentally impact on a water resource;

**S21(i)-** Altering the bed, banks, course or characteristic of a watercourse;

**Ablution**

Ablution facilities will be built

**Storage of dangerous goods**

During the applied agricultural activities, limited quantities of diesel and fuel, oil and lubricants will be stored on site. These goods should be placed in a bunded area one and a half times the volume of the total amount of goods to be stored. It is anticipated that no more than 30m<sup>3</sup> of fuel will be stored on site during any time of the operation.

## E. POLICY AND LEGISLATIVE CONTEXT

Title of legislation, policy or guideline	Administering authority	Date
The Constitution of the Republic of South Africa, Section 24 (Environmental Right)	The constitution of South Africa	18 December 1996
National Environmental Management Act (Act 107 of 1998), as amended (NEMA), and the EIA regulations as amended	National Department of Environmental Affairs	4 December 2014
National Environmental Management: Air Quality Act No 39 of 2004	National Department of Environmental Affairs	19 February 2005
Meat Health and Safety Act	National Government of South Africa	1 November 2000
Occupational Health and Safety Act (Act 85 of 1993)	Department of Labour	23 June 1993
Conservation of Agricultural Resources Act (Act no. 43 of 1983)	Department of Agriculture, Forestry and Fisheries	1 June 1984
National Forest Act(Act No. 122 of 1998)	Department of Agriculture, Forestry and Fisheries	30 October 1998
The National Heritage Resources Act (Act No. 25 of 1999)	South Africa Heritage Resource Agency (SAHRA) and provincial Heritage Authorities	28 April 1999
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)	National & Provincial	7 June 2004
National Veld & Forest Fires Act (Act 101 of 1998) as amended	Department of Agriculture, Forestry and Fisheries	19 November 1998
JB Marks Local Municipality Integrated Development Plan (IDF)		2019/2020
Kenneth Kaunda District Municipality (IDP)		

## F. NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES.

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).



<b>1. Is the activity permitted in terms of the property's existing land use rights?</b>	<b>YES</b>		Please explain
The current land use is mostly natural vegetation with some old, cultivated fields			
<b>2. Will the activity be in line with the following?</b>			
<b>(a) Provincial Spatial Development Framework (PSDF)</b>	<b>YES</b>		Please explain
It will boost the economy of the province: It is uncertain what the exact or expected capital value will be, but it is envisaged that it will contribute immensely to food security and the local economy. It is also expected that the feedlot, abattoir & rendering plant will create +- 35 permanent job opportunities			
<b>(b) Urban edge / Edge of Built environment for the area</b>		<b>NO</b>	Please explain
Not applicable			
<b>(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).</b>		<b>NO</b>	Please explain
The activities will contribute to the municipality & in no way will it compromise the integrity of the existing approved and credible municipal IDP and SDF			
<b>(d) Approved Structure Plan of the Municipality</b>		<b>NO</b>	Please explain
Not applicable			
<b>(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</b>		<b>NO</b>	Please explain
This will boost the economy of the municipality & the North West Province			
<b>(f) Any other Plans (e.g., Guide Plan)</b>		<b>NO</b>	Please explain
No			

<p><b>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</b></p>	<p>YES</p>		<p>Please explain</p>
<p>Around the property there is other agricultural land uses as well, mainly to the north and to the east of the proposed site.</p>			
<p><b>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)</b></p>	<p>YES</p>		<p>Please explain</p>
<p>It will contribute immensely to food security and the local economy. It is also expected that the feedlot, abattoir &amp; rendering plant will create +- 35 permanent job opportunities. These 35 permanent job opportunities will also provide for the dependants of the employee.</p>			
<p><b>5. Is this project part of a national programme to address an issue of national concern or importance?</b></p>		<p>NO</p>	<p>Please explain</p>
<p>No, however It will indirectly address an issue of national concern or importance</p>			
<p><b>6. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</b></p>	<p>YES</p>		<p>Please explain</p>
<p>Around the property there is other agricultural land uses as well, mainly to the north and to the east of the proposed site.</p>			
<p><b>7. Is the development the best practicable environmental option for this land/site?</b></p>	<p>YES</p>		<p>Please explain</p>
<p>Around the property there is other agricultural land uses as well, mainly to the north and to the east of the proposed site.</p>			
<p><b>8. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</b></p>	<p>YES</p>		<p>Please explain</p>
<p>In sync with job creation &amp; food production</p>			
<p><b>9. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</b></p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>In order that surrounding landowners may use their farms for agricultural purposes</p>			

<b>10. Will any person's rights be negatively affected by the proposed activity/ies?</b>		<b>NO</b>	Please explain
No rights will be negatively affected. The proposed development is far away from communities.			
<b>11. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?</b>		<b>NO</b>	Please explain
It is not within the urban edge			
<b>12. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPs)?</b>		<b>YES</b>	Please explain
It is mentioned under Strategic Integrated Projects (SIPs) no 4. "Unlocking the economic opportunities in the North West Province"			
It will boost the economy of the province: It will contribute immensely to food security and the local economy. It is also expected that the feedlot, abattoir & rendering plant will create +- 35 permanent job opportunities. These 35 permanent job opportunities will also provide for the dependants of the employee.			
<b>13. What will the benefits be to society in general and to the local communities?</b>			Please explain
Job creation & food production			
<b>14. Any other need and desirability considerations related to the proposed activity?</b>			Please explain
N/A			
<b>15. How does the project fit into the National Development Plan for 2030?</b>			Please explain
It ensures sustainable development			
<b>16. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.</b>			
This application ensured the following: <ul style="list-style-type: none"> <li>• Consideration of environmental attributes in management and decision-making which may have a significant effect on the environment</li> <li>• Adequate and appropriate opportunity for public participation in decisions that may affect the environment</li> <li>• Effects of activities on the environment receive adequate consideration before actions are taken in connection with them</li> <li>• identify, predict and evaluate the actual and potential impact on the environment, socioeconomic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits, and promoting compliance with the principles of environmental management</li> </ul>			

**17. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.**

This application took the following principles to consideration:

- Sustainable development
- Disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimized and remedied
- general framework within which environmental management and implementation plans must be ahead to
- waste is avoided, or where it cannot be altogether avoided, minimized and re-used or recycled where possible
- People and their needs were in forefront
- Physical, psychological, developmental, cultural and social interests equitably was considered
- Negative impacts on the environment and on people's environmental rights be anticipated and prevented,

**G. DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ACTIVITY, SITE AND LOCATION**

(i) Details of all alternatives considered.

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

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

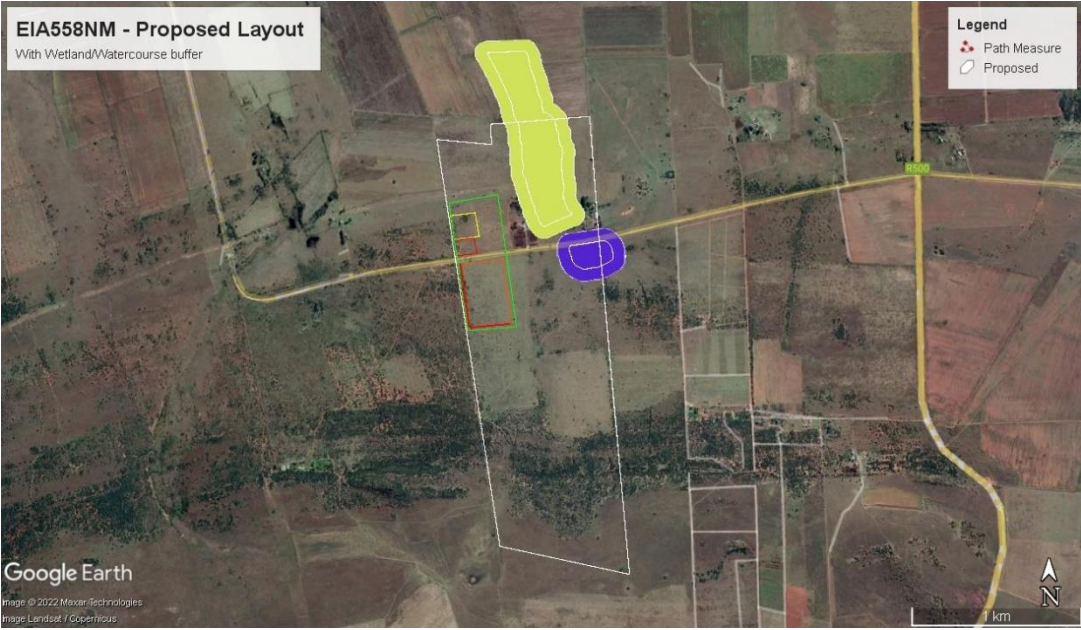
(a) The property on which or location where it is proposed to undertake the activity

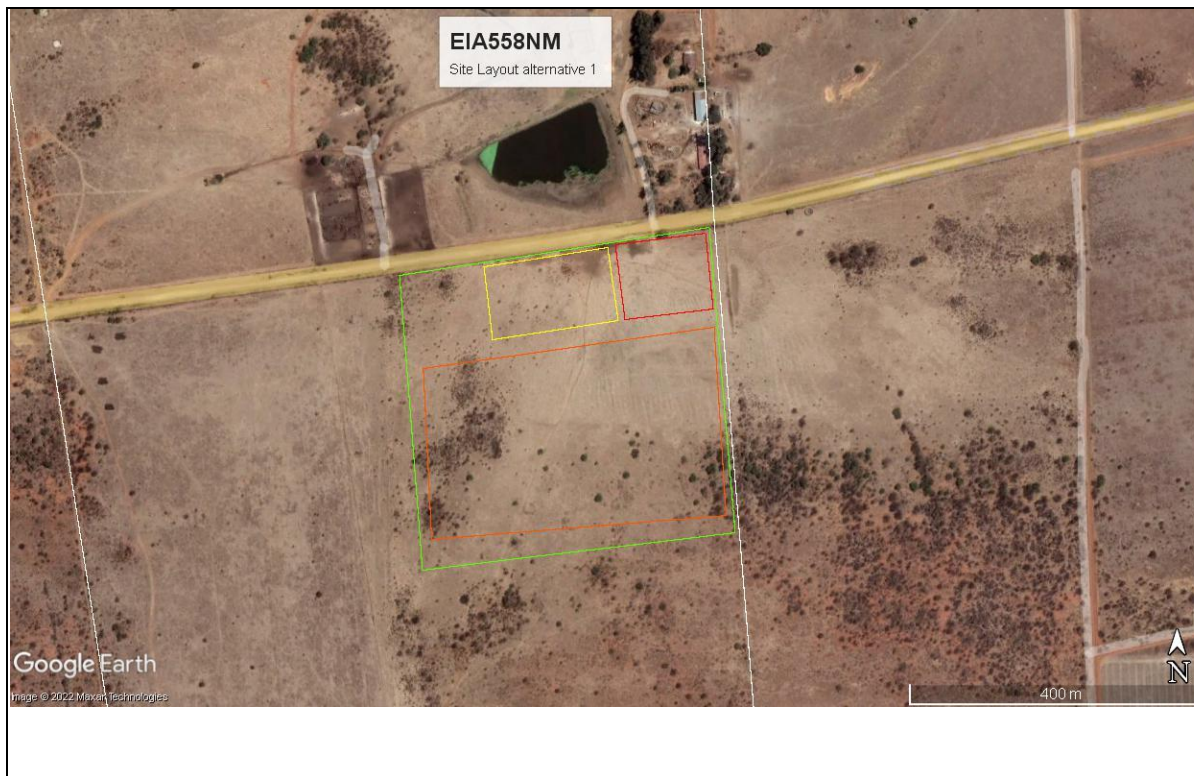
<b>Alternative 1 (preferred alternative)</b>		
<b>Description</b>	<b>Lat (DDMMSS)</b>	<b>Long (DDMMSS)</b>
Portion 40 (Remainder) of the Farm Eigenaarsfontein 442	26°39'33.55"S	27°28'32.38"E
	26°39'34.66"S	27°28'44.91"E
	26°39'30.37"S	27°28'44.60"E
	26°39'28.77"S	27°29'7.31"E
	26°40'59.75"S	27°29'15.04"E

	26°40'54.56"S	27°28'47.44"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	-	-

(b) The type of activity to be undertaken  
N/A

(c) The design or layout of the activity

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>The preferred layout is located on Portion 40 (Remainder) of the Farm Eigenaarsfontein 442, as indicated in the picture below:</p> 		
Alternative 2		
<p>The layout alternative below was also investigated, however upon further investigation it became apparent that it is within a wetland area, and thus this alternative was not further considered. Details of the sensitive nature of this specific area will be discussed in the EIR phase of the project</p>		



(d) The technology to be used in the activity

<b>Alternative 1 (preferred alternative)</b>
<p>Latest technology in the industry necessary for the applied activities will be utilised.</p> <p>Therefore, no alternative technology has been considered.</p>

(e) The option of not implementing the activity (No go alternative)

<p>This alternative considers the option of 'do nothing' and maintaining the status quo. The description considers the baseline conditions (status quo) to persist should the no-go alternative be preferred. Should the no go alternative persist, no change will take place The associated job opportunities and the contribution to the North West GDP will not be realized.</p>
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(ii) Details of the Public Participation Process undertaken

(a) Advertisement and Notices

### **Newspaper advertisement**

An advertisement was placed in English in the local newspaper (**Potchefstroom Herald**) on the **13<sup>th</sup> of April 2023** (**see Appendix 6**) notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Milnex CC. I&APs were given the opportunity to raise comments within 30 days of the advertisement.

### Site notices

Site notices were placed on site in English to inform surrounding communities and immediately adjacent landowners of the proposed development. I&APs will be given the opportunity to raise comments. Photographic evidence of the site notices will be included in **Appendix 6**.

### Direct notification and circulation of Scoping Report to identified I&APs, surrounding landowners and occupiers.

Identified I&APs, including key stakeholders representing various sectors, are directly informed of the proposed development and the availability of the Draft Scoping Report via registered post on the 19<sup>th</sup> of April 2023 and were requested to submit comments on/before the 22<sup>nd</sup> of May 2023. A copy of the dropbox link for all the documents was created and a hard copy of the report was also available at the Milnex offices in Schweizer-Reneke, 4 Botha Street, Schweizer-Reneke and Potchefstroom (Waterberry Street, Waterberry Square, 1st floor, Office 5B, Potchefstroom), between 7:30AM and 5PM, Monday to Thursday & between 7:30AM and 4PM on a Friday. For a complete list of stakeholder details and for proof of registered post see **Appendix 6**. The consultees included:

**Table 1: List of Stakeholders, Landowners, & surrounding landowners**

<b>Stakeholders</b>	<b>Landowners</b>	<b>Surrounding Landowner</b>
North-West Department of Economic Development, Environment, Conservation and Tourism (DEDECT)	<b>Wild Melody Inv 116 CC</b> Eigenaarsfontein 442/40(RE), 442/1(RE), 8, 10, 22, 23, 41, 50 & 0 - Landowner - Surrounding landowner 3	<b>Izak Barnard</b> Surrounding Landowner 2: Eigenaarsfontein 442/49
Department of Human Settlements (DHS)		<b>Alex Mpho Botuba &amp; Catherine Maria Sepeng</b> Surrounding Landowner 4: Eigenaarsfontein 442/29
Department of Water & Sanitation (DWS)		<b>Fortuway (Pty) Ltd</b> Surrounding Landowner 5: Eigenaarsfontein 442/30
Department of Mineral Resources & Energy (DMRE)		<b>Thandi Ruth Modise</b> Surrounding Landowner 6: Eigenaarsfontein 442/3
NW Department of Agriculture and Rural Development (DARD)		
Provincial Heritage Resources Agency (PHRA) North-West		

Stakeholders	Landowners	Surrounding Landowner
Department of Community Safety and Transport Management (DCSTM)		
Department of Agriculture Forestry, and Fisheries (DAFF)		
Department of Environment, Forestry, and Fisheries (DEFF)		
Department of Public Works and Roads in NW (DPWRT)		
Department: Cooperative Governance and Traditional Affairs (DCGTA)		
Department of Rural Development and Land reform: Land Claims Commission		
Department of Agriculture, Land Reform and Rural Development (DALRRD): Abattoir regulating official		
Agri North West		
Dr Kenneth Kaunda District Municipality		
WESSA (National Office)		
JB Marks Local Municipality		

**Meetings:**

**NB:** The interested and affected parties are given an opportunity to register by circulating, emails, registered letters, press advert and letters.

A meeting will be conducted upon request by the I&APs, by means of a virtual (Zoom or Microsoft Teams) or a physical meeting, whichever is preferred.



**Issues Raised by Interested and Affected Parties**





Comments received during this period are attached as comment & response report as well as populated in the table of summary of issues raised.







iii) Summary of issues raised by I&APs  
 (Complete the table summarising comments and issues raised, and reaction to those responses)





Interested and Affected Parties		Date	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Comments Received			
<b><u>AFFECTED PARTIES</u></b>					
<b>Landowner/s</b>	<b>X</b>				
<b>Eigenaarsfontein 442/40(RE)</b> Wild Melody Inv 116 CC					
<b>Lawful occupier/s of the land</b>					
<b>Landowners or lawful occupiers on adjacent properties</b>	<b>X</b>				
<b>Eigenaarsfontein 442/49</b> Izak Barnard					
<b>Eigenaarsfontein 442/1(RE), 8, 10, 22, 23, 41, 50 &amp; 0</b> Wild Melody Inv 116 CC					

<b>Eigenaarsfontein 442/29</b> Alex Mpho Botuba Catherine Maria Sepeng					
<b>Eigenaarsfontein 442/30</b> Fortuway (Pty) Ltd					
<b>Eigenaarsfontein 445/3</b> Thandi Ruth Modise					
<b>Municipal councillor</b>	<b>X</b>				
 JB Marks Local Municipality					
<b>Local Municipality</b>	<b>X</b>				
 JB Marks Local Municipality					
<b>District Municipality</b>					

 <p><b>DR. KENNETH KAUNDA</b> DISTRICT MUNICIPALITY</p> <p>Dr Kenneth Kaunda District Municipality</p>					
<p><b>Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWS etc.)</b></p>					
 <p><b>water &amp; sanitation</b></p> <p>Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA</p>					
 <p><b>dpwr</b></p> <p>Department: <b>Public Works and Roads</b> North West Provincial Government Republic of South Africa</p> <p>Department of Public Works and Roads (DPWR)</p>					
 <p><b>dcstm</b></p> <p>Department: Community Safety and Transport Management North West Provincial Government REPUBLIC OF SOUTH AFRICA</p> <p>Department Community Safety and Transport Management (DCSTM)</p>					

 <p>Department of Agriculture and Rural Development (DARD): <b>Abattoir regulating official</b> Tumelo Montoedi</p>					
 <p>Department of Human Settlements (DHS)</p>					
<p><b>Communities</b></p>					
<p>No community meeting has been conducted to date</p>					
<p><b>Dept. Land Affairs</b></p>					
 <p><b>Chief Director:</b> Mr Lengane Bogatsu</p>					
<p>Agnes Montwedi Keabetswe Mothupi</p>					

Kgomotso Majova					
<b>Traditional Leaders</b>					
No traditional leaders were found on site					
<b>Dept. Environmental Affairs</b>					
 <p><b>forestry, fisheries &amp; the environment</b>  Department:  Forestry, Fisheries and the Environment  REPUBLIC OF SOUTH AFRICA</p> <p>Department of Environment,  Forestry &amp; Fisheries (DEFF)</p>					
<b>Other Competent Authorities affected</b>					
 <p><b>mineral resources &amp; energy</b>  Department:  Mineral Resources and Energy  REPUBLIC OF SOUTH AFRICA</p> <p>Department of Mineral Resources  &amp; Energy (DMRE)</p>					
 <p><b>dedect</b>  Department:  Economic Development, Environment, Conservation and Tourism  North West Provincial Government  REPUBLIC OF SOUTH AFRICA</p> <p>Department of Economic  Development, Environment,  Conservation &amp; Tourism (DEDECT)</p>					

 <p><b>agriculture, forestry &amp; fisheries</b></p> <p>Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA</p> <p>Department of Agriculture, Forestry &amp; Fisheries (DAFF)</p>					
 <p><b>AGRI NW</b></p> <p>Agri North West</p>					
 <p><b>cogta</b></p> <p>Department: Cooperative Governance and Traditional Affairs North West Provincial Government REPUBLIC OF SOUTH AFRICA</p> <p>Department: Cooperative Governance and Traditional Affairs (DCGTA)</p>					
 <p><b>WESSA</b></p> <p>PEOPLE CARING FOR THE EARTH</p> <p>WESSA (National Office)</p>					

<u>OTHER INTERESTED &amp; AFFECTED PARTIES</u>				

iv. The Environmental attributes associated with the sites

### **(1) Baseline Environment**

The baseline environment is described with specific reference to geotechnical conditions, ecological habitat and landscape features, Soil, land capability and agricultural potential, climate and the visual landscape.

(a) Type of environment affected by the proposed activity.  
(its current geographical, physical, biological, socio- economic, heritage and cultural character).

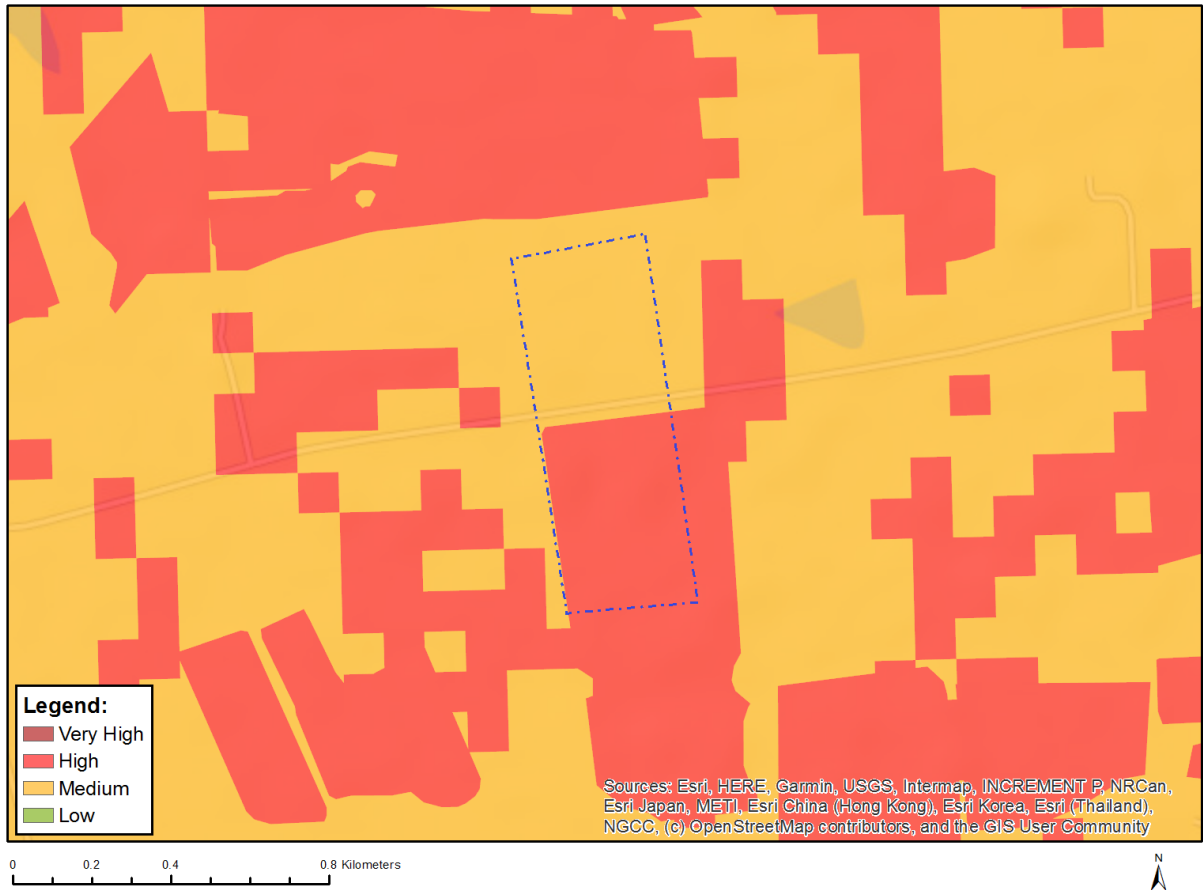
### **Results of the environmental sensitivity of the proposed area (Screening tool)**

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification.

### **Agriculture Theme Sensitivity**

According to the screening tool, the application area falls within a medium to high agricultural sensitive area. Figure 6 below show that the area comprises of high & medium sensitivity. This is in fact correct as a lot of the farm has been used for cultivation in the past.





**Figure 6:** Agricultural sensitivity map

**Agricultural / land capability**

Land capability is the combination of soil suitability and climate factors. The site and surrounds has a land capability classification, on the 8 category scale, of Class 3 & 6 (refer to Land capability map attached as Appendix 5).

Refer to Land capability map attached as **Appendix 5 & figure 7 below.**

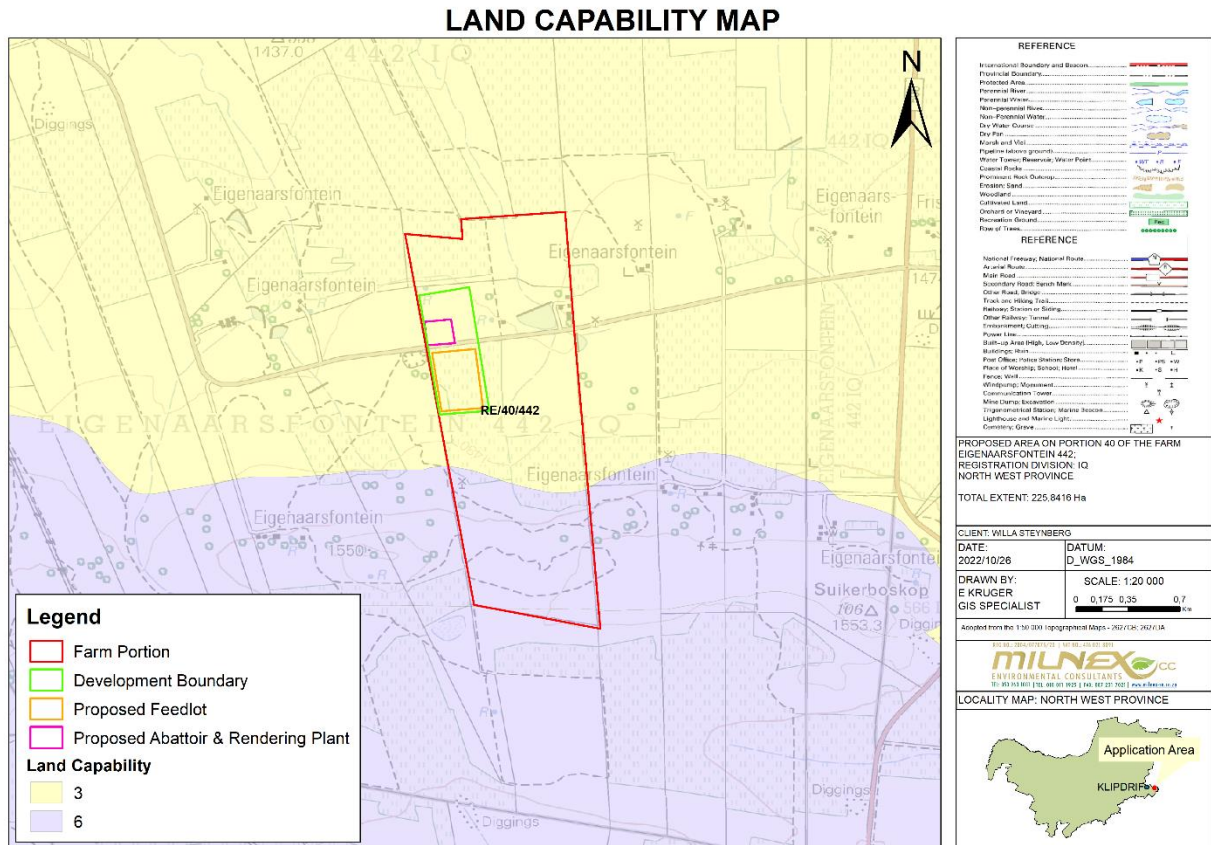


Figure 7: Land capability

### Aquatic Biodiversity Theme Sensitivity

The Aquatic Biodiversity Theme Sensitivity of the area is & low. The Sensitivity is depicted on Figure 8 below. An Ecological study has been commissioned because of a nearby river/drainage line, the site visit has been conducted already and the report will be included in the draft Environmental Impact Report.



**Figure 8: Aquatic Biodiversity Theme Sensitivity**

It is indicated that there are some wetland areas in the application area. As a result a wetland assessment as part of the ecological study has been commissioned and will be included in the Draft Environmental Impact Report.

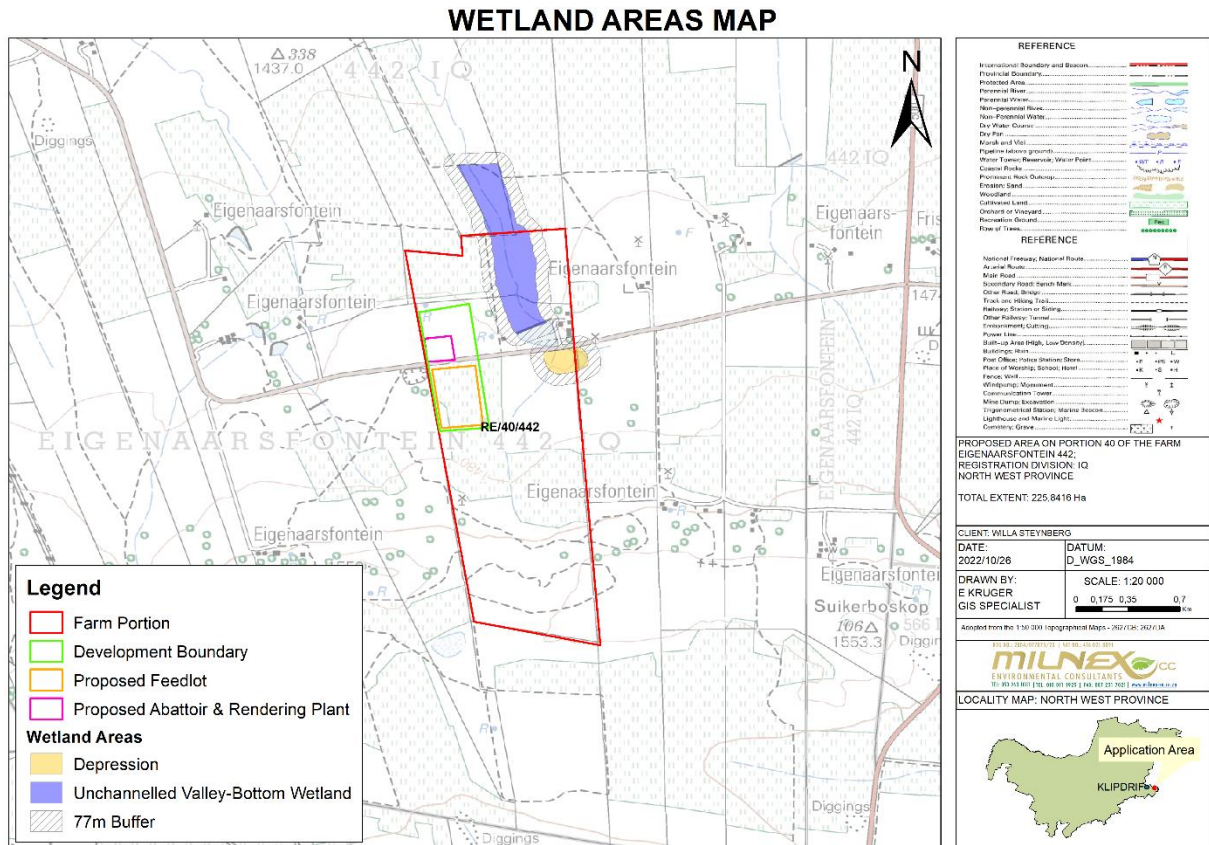


Figure 9: Wetland Map

**Terrestrial Biodiversity Theme Sensitivity & Vegetation Units**

According to the screening tool as implemented by DEA and attached as **Appendix 7**, the application area is within a very high Terrestrial Biodiversity Theme Sensitivity (See Figure 10). From the ArcGIS map, some of the areas are classified as CBA1, ESA 2, NPEAS & Vulnerable ecosystem areas. An Ecological study has been commissioned, the site visit has been conducted already and the report will be included in the draft Environmental Impact Report.



**Figure 10: Terrestrial Biodiversity Theme Sensitivity**

The proposed area falls within vegetation unit Gm 11 known as the **Rand Highveld Grassland**.

Mucina and Rutherford (2006), states the following:

**Distribution** Gauteng, North-West, Free State and Mpumalanga Provinces: In areas between rocky ridges from Pretoria to Witbank, extending onto ridges in the Stoffberg and Roossenekal regions as well as west of Krugersdorp centred in the vicinity of Derby and Potchefstroom, extending southwards and northeastwards from there. Altitude 1 300–1 635 m, but reaches 1 760 m in places.

**Vegetation & Landscape Features** Highly variable landscape with extensive sloping plains and a series of ridges slightly elevated over undulating surrounding plains. The vegetation is species-rich, wiry, sour grassland alternating with low, sour shrubland on rocky outcrops and steeper slopes. Most common grasses on the plains belong to the genera *Themeda*, *Eragrostis*, *Heteropogon* and *Elionurus*. High diversity of herbs, many of which belong to the Asteraceae, is also a typical feature. Rocky hills and ridges carry sparse (savannoid) woodlands with *Protea caffra* subsp. *caffra*, *P. welwitschii*, *Acacia caffra* and *Celtis africana*, accompanied by a rich suite of shrubs among which the genus *Rhus* (especially *R. magalisonata*) is most prominent.

**Geology & Soils** Quartzite ridges of the Witwatersrand Supergroup and the Pretoria Group as well as the Selons River Formation of the Rooiberg Group (last two are of the Transvaal Supergroup), supporting soils of various quality (shallow Glenrosa and Mispah forms especially on rocky ridges), typical of Ba, Bc, Bb and Ib land types.

**Climate** Strongly seasonal summer-rainfall, warm-temperate region, with very dry winters. MAP is 654 mm, ranging between 570 mm and 730 mm, slightly lower in the western regions. The coefficient of variation of MAP is 28% in the west and 26–27% in the east, and varies only slightly from 25% to 29% across the unit. The incidence of frost is higher in the west (30–40 days) than in the east (10–35 days). See also climate diagram for Gm 11 Rand Highveld Grassland (Figure 8.36).

**Important Taxa** Graminoids: *Ctenium concinnum* (d), *Cynodon dactylon* (d), *Digitaria monodactyla* (d), *Diheteropogon amplexans* (d), *Eragrostis chloromelas* (d), *Heteropogon contortus* (d), *Loudetia simplex* (d), *Monocymbium cerasiiforme* (d), *Panicum natalense* (d), *Schizachyrium sanguineum* (d), *Setaria sphacelata* (d), *Themeda triandra* (d), *Trachypogon spicatus* (d), *Tristachya biseriata* (d), *T. rehmannii* (d), *Andropogon schirensis*, *Aristida aequiglumis*, *A. congesta*, *A. junciformis* subsp. *galpinii*, *Bewsia biflora*, *Brachiaria nigropedata*, *B. serrata*, *Bulbostylis burchellii*, *Cymbopogon caesius*, *Digitaria tricholaenoides*, *Elionurus muticus*, *Eragrostis capensis*, *E. curvula*, *E. gummiiflua*, *E. plana*, *E. racemosa*, *Hyparrhenia hirta*, *Melinis nerviglumis*, *M. repens* subsp. *repens*, *Microchloa caffra*, *Setaria nigrirostris*, *Sporobolus pectinatus*, *Trichoneura grandiglumis*, *Urelytrum agropyroides*. Herbs: *Acanthospermum australe* (d), *Justicia anagalloides* (d), *Pollichia campestris* (d), *Acalypha angustata*, *Chamaecrista mimosoides*, *Dicoma anomala*, *Helichrysum caespitium*, *H. nudifolium* var. *nudifolium*, *H. rugulosum*, *Ipomoea crassipes*, *Kohautia amatymbica*, *Lactuca inermis*, *Maclodium zeyheri* subsp. *argyrophyllum*, *Nidorella hottentotica*, *Oldenlandia herbacea*, *Rotheca hirsuta*, *Selago densiflora*, *Senecio coronatus*, *Sonchus dregeanus*, *Vernonia oligocephala*, *Xerophyta retinervis*. Geophytic Herbs: *Boophone disticha*, *Cheilanthes hirta*, *Haemanthus humilis* subsp. *humilis*, *Hypoxis rigidula* var. *pilosissima*, *Ledebouria ovatifolia*, *Oxalis corniculata*. Succulent Herb: *Aloe greatheadii* var. *davyana*. Low Shrubs: *Anthospermum rigidum* subsp. *pumilum*, *Indigofera comosa*, *Rhus magalismsontana*, *Stoebe plumosa*. Succulent Shrub: *Lopholaena coriifolia* (d). Geoxylic Suffrutex: *Elephantorrhiza elephantina*.

**Biogeographically Important Taxa** (all Northern sourveld endemics) Geophytic Herbs: *Agapanthus inapertus* subsp. *pendulus*, *Eucomis vandermerwei*. Succulent Herb: *Huernia insigniflora*. Low Shrub: *Melhania randii*.

**Endemic Taxa** Herbs: *Melanospermum rudolfii*, *Polygala spicata*. Succulent Herbs: *Anacampseros subnuda* subsp. *lubberrisii*, *Frithia humilis*. Succulent Shrubs: *Crassula arborescens* subsp. *undulatifolia*, *Delosperma purpureum*. Small Trees: *Encephalartos lanatus*, *E. middelburgensis*.

**Conservation** Endangered. Target 24%. Poorly conserved (only 1%). Small patches protected in statutory reserves (Kwaggavoetpad, Van Riebeeck Park, Bronkhorstspuit, Boskop Dam Nature Reserves) and in private conservation areas (e.g. Doornkop, Zemvelo, Rhenosterpoort and Mpopomeni). Almost half has been transformed mostly by cultivation, plantations, urbanisation or dam-building. Cultivation may also have had an impact on an additional portion of the surface area of the unit where old lands are currently classified as grasslands in land-cover classifications and poor land management has led to degradation of significant portions of the remainder of this unit (D.B. Hoare, personal

observation). Scattered aliens (most prominently *Acacia mearnsii*) occur in about 7% of this unit. Only about 7% has been subjected to moderate to high erosion levels.

**Remark** This vegetation unit is very varied and geographically disjunct and requires further investigation.

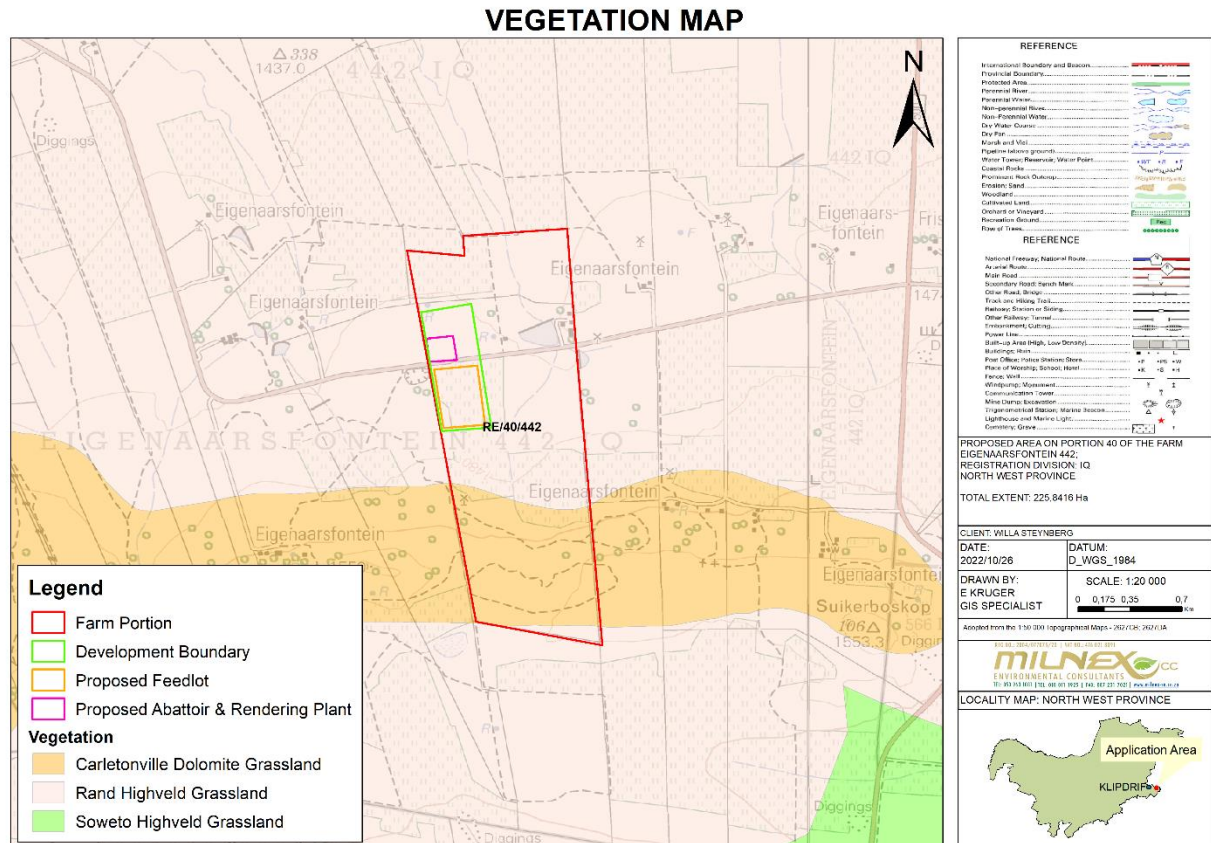


Figure 11: Vegetation units

### Description of the socio-economic environment

- Socio-economic conditions

### Description of the socio-economic environment

#### JB Marks Local Municipality:

JB Marks Local Municipality is a local municipality of South Africa. It was established after the August 2016 local elections by the merging of Tlokwe Local Municipality (which included Potchefstroom) and Ventersdorp Local Municipality. The municipality was renamed after JB Marks in 2017, following the creation of the new municipality the year before. Marks was born in Ventersdorp.

It combines the following areas from the Tlokwe Region: Ikageng and its extensions, Potchefstroom town, Mohadin, Promosa, Matlwang, Leliespan/Baitshoki, Haasskraal, Turfvlei, Vyfhoek, Mooibank, Machavie, Buffeldoorn, Miederpark, Kopjeskraal, Wilgeboom, Lindequesdrift. (Agricultural Holdings) Rooipoortjie, Venterskroon, Buffelshoek. (Rural) Vredefort Dome. (World Heritage Site) Vaal River. (Tourism attraction) and the rural hinterland.

Ventersdorp Region consists of a vast rural / commercial farming area as well as the urban area of Ventersdorp, Tshing and Toevlug and has six (6) villages namely Goedgevonden, Welgevonden, Tsetse, Ga-Magopa, Boikhutso and Boikhutsong.

The N12 route that connects Johannesburg and Cape Town via the city of Kimberley runs through the municipality. The main railway route from Gauteng to the Northern and Western Cape also runs through one of the municipality's main cities, Potchefstroom. The City is 145km south-east of OR Tambo International Airport but has its own airfield, which can accommodate bigger aircraft and was formerly a military air base.

### **Provincial Economy:**

The North-West Province contributed 6% to the national economy in 2018. The NW economy grew 0,6% in 2018. The economy was dominated by mining, at 30% of the provincial economy, followed by manufacturing at 5%, agriculture at 2%, and construction at 2%. The North West contributed 26% of national mining and 7% of national agriculture, but only 3% of manufacturing and 4% of construction.

### **Labour Market**

There were 543 thousand more people employed in Q3:2020 than Q2:2020. 1,35 Million people aged 15-64 years in North West were not economically active in Q3:2020. Number of persons employed increased by 60 thousand in Q3:2020 (North West). The largest losses in absolute terms was in Manufacturing (-17 thousand) followed by Electricity, Gas and Water Supply (3 thousand) jobs. Official Unemployment rate for North West lower than the national average, however the expanded unemployment rate is higher than the national average. Unemployment rate for North West increased to 28.3% in Q3. Labour participation rate increased to 49,0% in the NW. **Additional analysis on employment in relation to COVID-19:** 87,3% of the employed continued to receive pay during lockdown. 18,9% of those who received pay during lockdown were paid reduced salaries. The share of those receiving full salary increased irrespective of level of education between Q2:2020 and Q3:2020. 20,7% of those with less than matric received reduced pay.

### **Demographics**

The North-West Province has close to 4.1 million inhabitants. Bojanala Platinum District comprise close to 47% of the total population of North West, Dr Keneth Kaunda DM (19%), Ngaka Modiri Molema DM (22%) and Dr Ruth Segomotsi Mompati DM (12%). Approximately 49,1% (2,0M) of the population in the North West is female and males 49.12%.



Bojanala Platinum DM is the only district with a higher proportion of males. North West has close to 32% of children under 15 whilst Gauteng has the highest proportion of Youth and Adults (15-59).

### **National Poverty Line**

Around 47% of North West Population is considered poor based on the Lower Bound Poverty Line. (Money metric Poverty). 46,2% of Female headed households in North West do not have an employed household member. Most provinces are closer to the SA average for obtaining NSC, however still large disparity in obtaining post school qualifications by province, in the North West province 28.7% are able to obtain NSC/Grade 12 and 9.13% are able to obtain post school education. Grants remain A significant source of income for SA households, particularly in rural areas, 36% of household income is sourced from remittances and grants in North West.

### **Housing**

Housing is one of the important services provided by the municipality, which is also an indicator of development. 63% of houses in the municipal area are classified as formal while about 10 % of houses are located in informal settlements. About 7% of households reside in flats or apartments while the same percentage stays in backyards.

### **Municipal services**

There has been a steady increase in the number of household with access to flush toiled from 71% in 2011 to 76% in 2016. Access to piped water has decreased from 49% to 46% in the same period due to the growth in population and allocation of un-serviced stands in the municipal area. Access to electricity has not changed much for the period with the access standing at 87%. The highest increase in access to services has been in the removal of refuse removal which increased from 57%to 71%. As can be seen the municipality still needs to double its efforts in extending the provision of service to the entire municipal area.

- **Cultural and heritage aspects**

It can be clearly seen that the area falls in a low archaeological and cultural heritage combined sensitive area. The clearance of vegetation will strictly be limited to the proposed development area. No graves or structures of historical/cultural importance were observed from the site. Should any structures or graves be found on site during any phase of the development, all processes will cease, and the competent authority will be notified of such finding.

It should be noted that heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. Therefore if such resources are found during the development activities, they shall not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed

by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately and work will stop.

The photos below is typical of what type of landscape will be impacted. It was noted on site that there are no rocky outcrops or mountains/ridges that can resemble areas with high paleontological features.



**Figure 12:** Cultural and heritage aspects

A site visit was conducted on the 17<sup>th</sup> of April 2023. There was no evidence of any cultural or historically significant elements: Also see photos that resemble most of the area below:



**Figure 13:** Site photos

(b) Description of the current land uses.

Below is the land cover of the farm which depicts that the area is dominated by old agricultural fields. Some other adjacent land uses include: water bodies, and plantations.

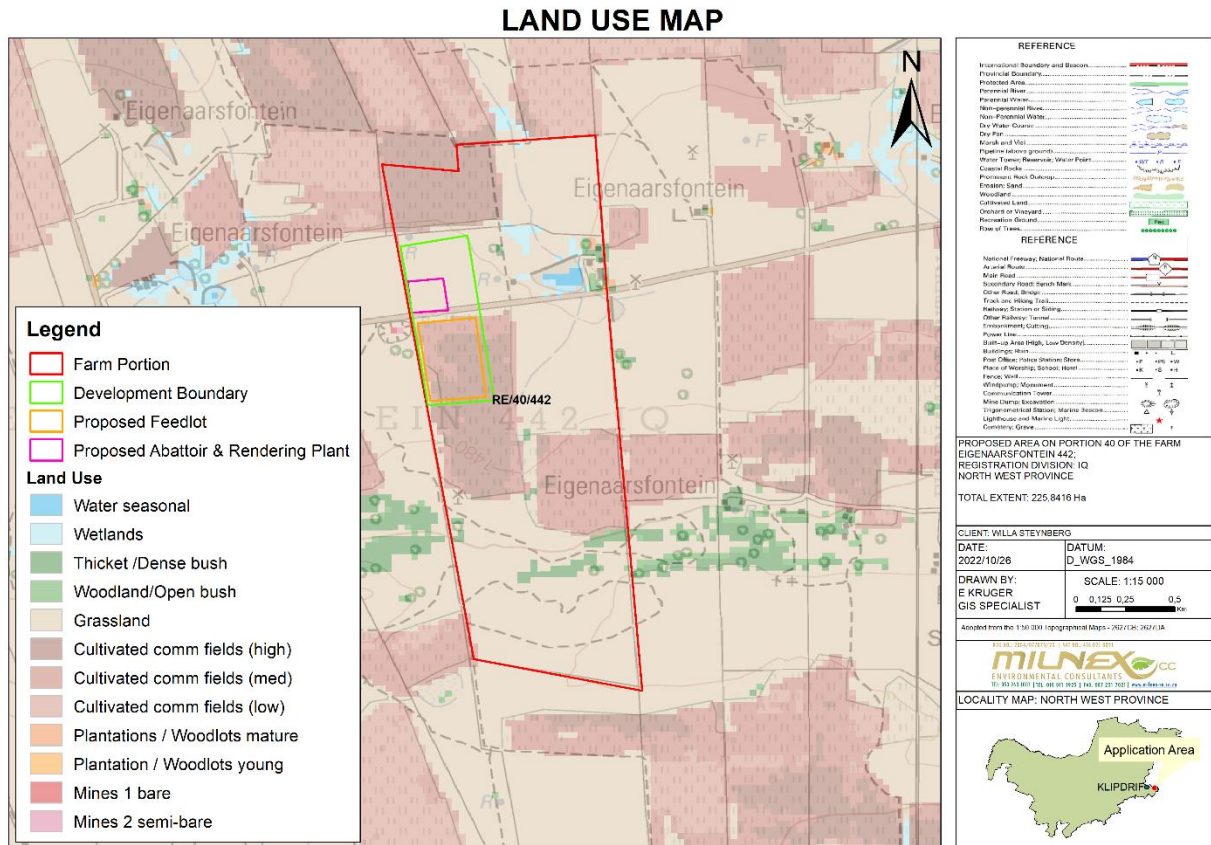


Figure 14: Land Use Map

(c) Description of specific environmental features and infrastructure on the site.

The proposed project area contains a depression and an unchanneled valley bottom wetland within its boundaries. These sensitive areas will be respectfully buffered (70m buffer) to minimise/prohibit any physical activity with the potential of disturbing the area from taking place. 4 boreholes exist within the project boundaries as well as a feedlot which was constructed before 1998. There are also existing houses and storing areas on site.

(d) Screening Tool

### Site Environmental sensitivity

In 2018 the Department of Environmental Affairs has developed a screening tool that has enabled Environmental Assessment Practitioners (EAP's) to conduct a site environmental sensitivity screening with regards to their respective projects. With the help of an online screening tool EAP's can now identify site sensitivity with regards to various aspects. The screening report for this project has been generated and the following specialist studies have been identified. However, it became apparent that many of the specialist studies are not relevant.

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

The screening report for this project has been generated and the following specialist studies have been identified. However upon inspecting the site it became apparent that many of the specialist studies are not relevant.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Animal Species Theme		X		
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme			X	
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. As it is the responsibility of the EAP to confirm this list and to motivate in the assessment report reasons for not including it in the report, see table below:

No	Specialist Assessment	Comment
1	Landscape/Visual	The property is located approximately 50km to the West of Potchefstroom. The project area is located approximately 2.5km away from the R500 and even further from any community. The farm is surrounded by other farms. The land uses that surround the property is also grazing and agriculture. It is foreseen that the visual impact of the proposed development will have a low to very low impact. As a result no Visual/Landscape Impact Assessment was commissioned for this project.
2	Archaeological and Cultural Heritage Impact Assessment.	According to the screening report it is indicated that the Archaeological and Cultural heritage combined sensitivity is low. As this is a surface operation, invasive activities such as prospecting or mining will not occur. As a result no rocks will be laid bare.

		Upon the initial and the recent site inspection on the 07 <sup>th</sup> of November 2022 and 17 <sup>th</sup> of April 2023 respectively, it became apparent that the area is very homogenic and consists of grass, shrubs, trees and an existing feedlot. No old structures or boulders were identified. It will be stated in the Environmental management Programme (EMPr) in the Draft EIR phase that should any artefacts be discovered; it must be left alone and relevant persons should be contacted. It is foreseen that the impact on the archaeological and cultural aspects will be low to very low. As a result no archaeological and cultural impact assessment was commissioned for this project
3	Palaeontology Impact Assessment	Considering that the activity to be performed (agriculture) is surface based and not invasive (such as prospecting or mining), it is anticipated that the impact on rocks containing palaeontological features is minimal. No rock will be laid bare during the construction and operation of the development. Upon the initial and the recent site inspection on the 07 <sup>th</sup> of November 2022 and 17 <sup>th</sup> of April 2023 respectively, it became apparent that the area is very homogenic and that the area did not consist of many surface rocks. The screening report also shows that the proposed project area has a medium palaeontology sensitivity. It will be stated in the Environmental management Programme (EMPr) in the Draft EIR phase that should there be any palaeontological findings, work should immediately stop, it must be left alone and relevant persons should be contacted. It is foreseen that the impact on the paleontological aspects will be low as a result of the nature of this development. As a result no paleontological impact assessment was commissioned for this project
4	Terrestrial Biodiversity Impact Assessment	The screening report developed for the proposed project showed that the area is overlain by a relative terrestrial biodiversity theme sensitivity of very high with features including the CBA1, ESA2, PAES and vulnerable ecosystem. It is proposed for this project that an ecological study be conducted over the proposed area. Results of such study will be thoroughly investigated during the EIA & EMPr phase for this application.
5	Aquatic Biodiversity Impact Assessment	It is indicated that there are some wetland areas in the application area. As a result a wetland assessment study has been commissioned and will be included in the Draft Environmental Impact Report.
6	Hydrology Assessment	There are some boreholes located on the property, and some of the boreholes will be used during the life of this project. Therefore, a

		Hydrogeological Assessment is proposed to be conducted for this application where results will be discussed and included in the EIA & EMPr phase.
7	Socio Economic Assessment	It is proposed that the proposed development will employ +- 35 individuals to operate in the feedlot, abattoir & rendering plant. No Socio-Economic Assessment was commissioned for this project to date.
8	Plant Species Assessment	As part of the Ecological study, a Fauna and Flora site verification will be done in order to verify plant species that are present. As part of the Ecological Study a tree removal application will also be submitted to DAFF should the need arise in the project to remove/disturb any sensitive plant species.
9	Animal Species Assessment	As part of the Ecological study, a Fauna and Flora site verification will be done in order to verify plant species that are present. The screening report also shows that the proposed area has high animal species sensitivity.

See the full screening tool under **Appendix 7**

v) The impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts

The following sections present the outcome of the significance rating exercise. The results suggest that almost none of the key issues identified as part of the EIR process had a negative high environmental significance. Instead the overall score indicate a low environmental significance score.

### **INITIAL CLEARANCE AND SITE PREPARATION PHASE**

**Direct impacts:** During this phase minor negative impacts are foreseen over the short term. The latter refers to a period of weeks. The site preparation may result in the loss or fragmentation of indigenous natural fauna and flora, loss or fragmentation of habitats, soil erosion, hydrology, and temporary noise disturbance, generation of waste, visual intrusions, increase in heavy vehicle traffic, and risk to safety, livestock and farm infrastructure, and increased risk of veld fires. The abovementioned impacts are discussed in more detail below:

Loss or fragmentation of indigenous natural fauna and flora:

<b>Loss or fragmentation of indigenous natural fauna and flora</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Site (1)	Site (1)
Probability	Definite (4)	Definite (4)
Duration	Permanent (4)	Long term (3)
Magnitude	High (3)	Medium (2)
Reversibility	Partly reversible (2)	Completely reversible (1)
Irreplaceable loss of resources	Significant loss of resource (3)	Significant loss of resource (3)
Cumulative impact	Medium cumulative impacts (2)	
<b>Significance</b>	<b>Negative Medium (48)</b>	<b>Negative low (38)</b>
Can impacts be mitigated?	<p>If the development is approved, contractors must ensure that no mammalian species are disturbed, trapped, hunted or killed. If the development is approved, every effort should be made to confine the footprint to the blocks allocated for the development and have the least possible edge effects on the surrounding area.</p> <p>The potential impacts associated with damage to and loss of farmland should be effectively mitigated. The aspects that should be covered include:</p> <ul style="list-style-type: none"> <li>• The site should be fenced off prior to commencement of construction activities;</li> <li>• The footprint associated with the construction related activities (access roads, construction platforms, workshop etc.) should be confined to the fenced off area and minimised where possible;</li> <li>• An Environmental Control Officer (ECO) should be appointed to monitor the establishment phase of the construction phase;</li> <li>• All areas disturbed by construction related activities, such as access roads on the site, construction platforms, workshop area etc., should be rehabilitated at the end of the construction phase;</li> <li>• The implementation of a rehabilitation programme should be included in the terms of reference for the contractor/s appointed.</li> <li>• The implementation of the Rehabilitation Programme should be monitored by the ECO.</li> </ul>	



- Loss or fragmentation of habitats

<b>Loss or fragmentation of habitats</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Definite (4)	Definite (4)
Duration	Medium term (2)	Medium term (2)
Magnitude	Very High (4)	High (3)
Reversibility	Barely reversible (3)	Barely reversible (3)
Irreplaceable loss of resources	Significant loss of resource (3)	Marginal loss of resource (2)
Cumulative impact	Medium cumulative impacts (3).	
<b>Significance</b>	<b>Negative High (68)</b>	<b>Negative Medium (48)</b>
Can impacts be mitigated?	Exotic and invasive plant species should not be allowed to establish, if the development is approved. Where exotic and invasive plant species are found at the site continuous eradication should take place. If the development is approved, every effort should be made to confine the footprint to the blocks allocated for development.	

- Soil erosion – Soil erosion due to alteration of the land surface run-off characteristics. Alteration of run-off characteristics may be caused by construction related land surface disturbance & vegetation removal. Erosion will cause loss and deterioration of soil resources. The erosion risk is low due to the low slope gradients and very low erodibility of the soils.

<b>Soil erosion</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Geographical extent	Site (1)	Site (1)
Probability	Possible (2)	Unlikely (1)
Duration	Medium term (2)	Medium term (2)
Magnitude	Medium (2)	Medium (2)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	Marginal (2)	Marginal (2)
Cumulative impact	Negligible cumulative impact (1).	
<b>Significance</b>	<b>Negative low (20)</b>	<b>Negative low (18)</b>

Can impacts be mitigated?	<p>The following mitigation or management measures are provided: Implement an effective system of run-off control, where it is required, that collects and safely disseminates run-off water from all hardened surfaces and prevents potential down slope erosion.</p> <p>Include periodical site inspection in environmental performance reporting that inspects the effectiveness of the run-off control system and specifically records the occurrence any erosion on site or downstream</p>
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- Temporary noise disturbance - Preparation activities will result in the generation of noise from workers, tractors. The noise impact is unlikely to be significant

Temporary noise disturbance	Pre-mitigation impact rating	Post mitigation impact rating
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Definite (4)	Probable (3)
Duration	Short term (1)	Short term (1)
Magnitude	Medium (2)	Low (1)
Reversibility	Completely reversible (1)	Completely reversible (1)
Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
Cumulative impact	The impact would result in negligible to no cumulative effects (1).	
<b>Significance</b>	<b>Negative low (20)</b>	<b>Negative low (9)</b>
Can impacts be mitigated?	Yes, management actions related to noise pollution, will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.	

- Impacts on heritage objects – In terms of the National Heritage Resource Act no 25 of 1999. Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage

resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately, and work will stop.

<b>Impacts on heritage objects</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Site (1)	Site (1)
Probability	Possible (2)	Possible (2)
Duration	Short term (1)	Short term (1)
Magnitude	Medium (2)	Low (1)
Reversibility	Irreversible (4)	Irreversible (4)
Irreplaceable loss of resources	Marginal loss of resource (2)	Marginal loss of resource (2)
Cumulative impact	Low cumulative impact (2). Should these impacts occur, there may be a cumulative impact on the preservation of heritage objects in the area.	
<b>Significance</b>	<b>Negative low (24)</b>	<b>Negative low (12)</b>
Can impacts be mitigated?	If archaeological sites or graves are exposed during construction work, it should immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made. Actions related to heritage impacts, will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.	

- Generation of waste - general waste, construction waste, sewage and grey water - The workers on site are likely to generate general waste such as food wastes, packaging, bottles, etc. The applicant will need to ensure that general and construction waste is appropriately disposed of i.e. taken to the nearest licensed landfill. Sufficient ablution facilities will have to be provided, in the form of portable/VIP toilets. No pit latrines, French drain systems or soak away systems shall be allowed.

<b>Generation of waste</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local/district (2)	Local/district (2)
Probability	Definite (4)	Definite (4)

Duration	Short term (1)	Short term (1)
Magnitude	Low (1)	Low (1)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
<b>Significance</b>	<b>Negative low (10)</b>	<b>Negative low (10)</b>
Can impacts be mitigated?	Yes, management actions related to noise pollution, will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.	

**Indirect impacts:** The nuisance aspects generally associated with the installation of infrastructure or ground preparation will also be applicable to this development, which relates primarily to the increase in vehicle traffic associated with the construction, the influx of job seekers to the area, risk to safety, livestock and farm infrastructure, and increased risk of veld fires.

- Increase in vehicle traffic – The movement of heavy vehicles during the clearance of vegetation and topsoil has the potential to damage local farm roads and create dust and safety impacts for other road users in the area. While the volume of traffic along this road is low, the movement of heavy vehicles along this road is likely to damage the road surface and impact on other road users. The contractor should be required to ensure that damage to the road is repaired periodically. The movement of additional heavy vehicle traffic will add significantly to the current traffic load on the road.

<b>Increase in vehicle traffic</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Possible (2)	Possible (2)
Duration	Short term (1)	Short term (1)
Magnitude	Medium (2)	Low (1)
Reversibility	Completely reversible (1)	Completely reversible (1)
Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
Cumulative impact	Medium cumulative impact (3). If damage to roads is not repaired then this will affect the farming activities in the area and result in higher maintenance costs for vehicles of local	

	farmers and other road users. The costs will be borne by road users who were no responsible for the damage.	
<b>Significance</b>	<b>Negative low impacts (20)</b>	<b>Negative low (10)</b>
Can impacts be mitigated?	<p>The potential impacts associated with heavy vehicles can be effectively mitigated. The mitigation measures include:</p> <ul style="list-style-type: none"> <li>• The contractor must ensure that damage caused by construction on the gravel road is repaired. The costs associated with the repair must be borne by the contractor;</li> <li>• Dust suppression measures must be implemented for heavy vehicles such as wetting of gravel roads on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers;</li> <li>• All vehicles must be road-worthy and drivers must be qualified and made aware of the potential road safety issues and need for strict speed limits.</li> </ul>	

- Risk to safety, livestock and farm infrastructure - The presence on and movement of workers on and off the site poses a potential safety threat to local farmer's and farm workers in the vicinity of the site threat.

<b>Risk to safety, livestock and farm infrastructure</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Probable (3)	Probable (3)
Duration	Medium term (2)	Medium term (2)
Magnitude	High (3)	Medium (2)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	Marginal resource (2)	Marginal resource (2)
Cumulative impact	Low cumulative effects (2), provided losses are compensated for.	
<b>Significance</b>	<b>Negative medium (39)</b>	<b>Negative low (26)</b>

<p>Can impacts be mitigated?</p>	<ul style="list-style-type: none"> <li>• The construction area should be fenced off prior to the commencement of the construction phase. The movement of construction workers on the site should be confined to the fenced off area;</li> <li>• Contractors appointed by <b>Mr Wildrick Steynberg</b> should provide daily transport for low and semi-skilled workers to and from the site. This would reduce the potential risk of trespassing on the remainder of the farm and adjacent properties;</li> <li>• <b>Mr Wildrick Steynberg</b> should hold contractors liable for compensating farmers in full for any stock losses and/or damage to farm infrastructure that can be linked to construction workers. This should be contained in the Code of Conduct to be signed between the proponent, the contractors and neighbouring landowners. The agreement should also cover losses and costs associated with fires caused by construction workers or construction related activities (see below);</li> <li>• The Environmental Management Programme (EMPr) should outline procedures for managing and storing waste on site, specifically plastic waste that poses a threat to livestock if ingested;</li> <li>• Contractors appointed by <b>Mr Wildrick Steynberg</b> must ensure that all workers are informed at the outset of the construction phase of the conditions contained on the Code of Conduct, specifically consequences of stock theft and trespassing on adjacent farms.</li> <li>• Contractors appointed by <b>Mr Wildrick Steynberg</b> must ensure that construction workers who are found guilty of trespassing, stealing livestock and/or damaging farm infrastructure are dismissed and charged. This should be contained in the Code of Conduct. All dismissals must be in accordance with South African labour legislation;</li> <li>• The housing of construction workers on the site should be strictly limited to security personnel (if any).</li> </ul>
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- Increased risk of veld fires - The presence of construction workers and construction-related activities on the site poses an increased risk of grass fires that could in turn pose a threat to livestock, crops, wildlife and farmsteads in the area. In the process, farm infrastructure may also be damaged or destroyed and human lives threatened. The potential risk of grass fires was heightened by the windy conditions in the area, especially during the dry, windy winter months from May to October. In terms of potential mitigation measures, a firebreak should be constructed around the perimeter of the site prior to the commencement of the construction phase. In addition, fire-fighting equipment should be provided on site during the construction phase.

<b>Increased risk of veld fires</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Region (3)	Local (2)
Probability	Probable (3)	Probable (3)
Duration	Medium term (2)	Short term (1)
Magnitude	High (3)	Low (1)
Reversibility	Completely reversible (1)	Completely reversible (1)
Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
Cumulative impact	Negligible cumulative effects (1), provided losses are compensated for.	
<b>Significance</b>	<b>Negative medium (33)</b>	<b>Negative low (9)</b>
Can impacts be mitigated?	<p>The mitigation measures include:</p> <ul style="list-style-type: none"> <li>• A fire-break should be constructed around the perimeter of the site prior to the commencement of the construction phase;</li> <li>• Contractor should ensure that open fires on the site for cooking or heating are not allowed except in designated areas;</li> <li>• Contractor to ensure that construction related activities that pose a potential fire risk, such as welding, are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high risk dry, windy winter months;</li> </ul>	

	<ul style="list-style-type: none"> <li>• Contractor to provide adequate firefighting equipment on-site, including a fire fighting vehicle;</li> <li>• Contractor to provide fire-fighting training to selected construction staff;</li> <li>• No construction staff, with the exception of security staff, to be accommodated on site over night;</li> <li>• As per the conditions of the Code of Conduct, in the event of a fire being caused by construction workers and or construction activities, the appointed contractors must compensate farmers for any damage caused to their farms. The contractor should also compensate the firefighting costs borne by farmers and local authorities.</li> </ul>
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## OPERATIONAL PHASE

**Direct impacts:** During the operational phase the study area will serve as a cultivated field area and the impacts are generally associated with soil erosion, change in land use, impacts associated with the, increase in storm water runoff, increased consumption of water, visual intrusion, the generation of general waste, leakage of hazardous materials, and the change in the sense of place. The operational phase will also have a direct positive impact through the provision of permanent employment opportunities and facilitating a positive economic growth. The abovementioned impacts are discussed in more detail below:

- Soil erosion – The largest risk factor for soil erosion will be during the operational phase when the activity ensues, and soil is left bare until rehabilitation is initiated. Erosion will be localized within the site. This will ultimately lead to the irretrievable commitment of this resource. The measurable effect of reducing erosion by utilizing mitigation measures may reduce possible erosion significantly.

Soil erosion	Pre-mitigation impact rating	Post mitigation impact rating
Status (positive or negative)	Negative	Negative
Extent	Site (1)	Site (1)
Probability	Possible (4)	Unlikely (1)
Duration	Medium term (2)	Medium term (2)
Magnitude	Medium (2)	Medium (2)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	Marginal (2)	Marginal (2)
Cumulative impact	Negligible cumulative impact (1)	



<b>Significance</b>	<b>Negative low (20)</b>	<b>Negative Low (18)</b>
Can impacts be mitigated?	<p>Yes, to avoid soil erosion it will be a good practice to not remove all the vegetation at once but to only clear the area as it becomes necessary.</p> <p>The following mitigation or management measures are provided: Implement an effective system of run-off control, where it is required, that collects and safely disseminates run-off water from all hardened surfaces and prevents potential down slope erosion.</p> <p>Include periodical site inspection in environmental performance reporting that inspects the effectiveness of the run-off control system and specifically records the occurrence any erosion on site or downstream</p>	

- Generation of alternative land use income – Income generated through the agricultural activities will provide the farming enterprise with increased cash flow and rural livelihood, and thereby improve the financial sustainability of farming on site.

<b>Generation of alternative land use income</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Positive	Positive
Geographical extent	Site (1)	Site (1)
Probability	Definite (4)	Definite (4)
Duration	Long term (3)	Long term (3)
Magnitude	Medium (2)	Medium (2)
Reversibility	Completely reversible (1)	Completely reversible (1)
Irreplaceable loss of resources	No loss of resources (1)	No loss of resources (1)
Cumulative impact	Medium cumulative impact (3).	
<b>Significance</b>	<b>Positive Low (24)</b>	<b>Positive High (52)</b>
Can impacts be mitigated?	No mitigation required.	

- Increase in storm water runoff – The development will potentially result in an increase in storm water run-off that needs to be managed to prevent soil erosion, especially where vegetation will be cleared.

<b>Increase in storm water runoff</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Probable (3)	Unlikely (1)
Duration	Long term (3)	Long term (3)
Magnitude	Medium (2)	Medium (2)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	Marginal loss of resource (2)	Marginal loss of resource (2)
Cumulative impact	Medium cumulative impact (3) - Should these impacts occur, there will be a cumulative impact on the wider area.	
<b>Significance</b>	<b>Negative medium (30)</b>	<b>Negative low (26)</b>
Can impacts be mitigated?	<p>Yes. Management actions related to increase in storm water runoff will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.</p> <p>The cut-off trenches and silt fences will be installed where necessary as to control runoff storm water by attenuating it and control the movement of sediment on the premises.</p> <p>These structures will be monitored on a regular basis. It is suggested that it be monitored on a weekly basis during the rainy season, and after possible rain events during the dry season.</p> <p>If these practices are found to be insufficient for the control of storm water and sedimentation, other alternatives should immediately be investigated and implemented.</p>	

- Increased consumption of water - Water to be used on site will be obtained from the nearby boreholes. The amount necessary is 199 33.8m<sup>3</sup>/a from the 4 boreholes.

<b>Increased consumption of water</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
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Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (1)
Probability	Definite (4)	Probable (3)
Duration	Long term (3)	Long term (3)
Magnitude	Medium (2)	Medium (2)
Reversibility	Irreversible (4)	Irreversible (4)
Irreplaceable loss of resources	Marginal loss of resources (2)	Marginal loss of resources (2)
Cumulative impact	High cumulative impacts (4) - An additional demand on water sources could result in a significant cumulative impact with regards to the availability of water.	
<b>Significance</b>	<b>Negative medium (38)</b>	<b>Negative medium (34)</b>
Can impacts be mitigated?	<p>Yes. Management actions related to increase in consumption of water will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.</p> <ul style="list-style-type: none"> <li>• Minimise groundwater abstraction by irrigating when necessary;</li> <li>• Increase water-use efficiencies by knowing how much water to apply and how often.</li> </ul> <p>The rate of irrigation water infiltration into a cropped soil can be controlled by first determining the terminal infiltration rate, and then irrigating according to this rate (mm/h), as well as knowing the volume of water each soil type can hold at field capacity, and not exceeding this amount (mm/rooting depth);</p> <ul style="list-style-type: none"> <li>• Soil surface evaporation can be reduced by applying crop residues and other plant mulches over the entire land (no-till method). This will minimise surface runoff and soil erosion, enhance moisture infiltration into the soil, and reduce evaporation;</li> </ul>	

	<ul style="list-style-type: none"> <li>• Reduce evaporation by only irrigating during the cooler times of the day (4pm – 8am);</li> <li>• Groundwater level monitoring of the abstraction borehole.</li> </ul>
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- Generation of waste –General waste will be stored on the site and removed on a weekly basis by a registered contractor.

Generation of waste	Pre-mitigation impact rating	Post mitigation impact rating
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Definite (4)	Definite (4)
Duration	Long term (3)	Long term (3)
Magnitude	Low (1)	Low (1)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
Cumulative impact	Medium cumulative impact (3) - An additional demand for landfill space could result in significant cumulative impacts with regards to the availability of landfill space.	
<b>Significance</b>	<b>Negative low (15)</b>	<b>Negative low (15)</b>
Can impacts be mitigated?	Yes. Management actions related to increase in consumption of water will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.	

- Leakage of hazardous materials - The proposed activity will make use of machinery that use fuel and oil. Leakage of these oils and fuel can contaminate water supplies and must be prevented by constructing oil and diesel permeable bunds to ensure that any spills are suitably attenuated and not released into the environment.

Leakage of hazardous materials	Pre-mitigation impact rating	Post mitigation impact rating
Status (positive or negative)	Negative	Negative

Extent	Local (2)	Local (2)
Probability	Possible (2)	Unlikely (1)
Duration	Long term (3)	Long term (3)
Magnitude	High (3)	Medium (2)
Reversibility	Partly reversible (2)	Partly reversible (2)
Irreplaceable loss of resources	Marginal loss of resource (2)	Marginal loss of resource (2)
Cumulative impact	The impact would result in negligible to no cumulative effects (1)	
<b>Significance</b>	<b>Negative medium (36)</b>	<b>Negative low (22)</b>
Can impacts be mitigated?	<p>Regular maintenance to be performed in order to detect leaks.</p> <p>Vehicles leaking oil/diesel should be repaired immediately</p> <p>A drip tray should be placed underneath parked vehicles.</p> <p>Yes. Management actions related to leakage of hazardous material will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.</p>	

- Noise disturbance - Sources of noise are likely to include vehicles, the use of machinery & people working on site

<b>Noise disturbance</b>	<b>Pre-mitigation impact rating</b>	<b>Post mitigation impact rating</b>
Status (positive or negative)	Negative	Negative
Extent	Local (2)	Local (2)
Probability	Definite (4)	Probable (3)
Duration	Short term (1)	Short term (1)
Magnitude	Medium (2)	Low (1)
Reversibility	Completely reversible (1)	Completely reversible (1)

Irreplaceable loss of resources	No loss of resource (1)	No loss of resource (1)
Cumulative impact	The impact would result in negligible to no cumulative effects (1).	
<b>Significance</b>	<b>Negative low (20)</b>	<b>Negative low (9)</b>
Can impacts be mitigated?	Yes, management actions related to noise pollution, will be included in the Draft Environmental Management Programme that will be incorporated into the Draft Environmental Impact Report.	

**Indirect impacts:** The operational phase will have an indirect negative impact through the change in the sense of place and an indirect positive impact through the provision of additional electrical infrastructure.

**The impacts for the alternative location as well as the alternative layout are exactly the same as the above-mentioned impacts.**

**DECOMMISSIONING PHASE**

**Direct impacts:** Typically, the major social impacts associated with the decommissioning phase are linked to the loss of jobs and associated income. This has implications for the households who are directly affected, the communities within which they live.

**Indirect impacts:** No indirect impacts are anticipated from the decommissioning phase of the proposed development.

The decommissioning of the site could create disturbed areas leaving fallow crop fields behind and erosion and dust pollution may occur.

- Erosion may occur after thunderstorms and heavy rains. Eroded areas may occur on exposed areas on slopes. Care must be taken that rehabilitation of disturbed area must be done.
- Regular monitoring of these areas must take place to ensure successful rehabilitation.
- It is recommended that the sites should be covered by planted pasture in case the pivot irrigation system is no longer in operation.

**vi. Methodology used in determining the significance of environmental impacts**

**Scoping methodology**

The contents and methodology of the scoping report aims to provide, as far as possible, a user-friendly analysis of information to allow for easy interpretation.

- **Checklist:** The checklist consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts.
- **Matrix:** The matrix analysis provides a holistic indication of the relationship and interaction between the various activities, development phases and the impact thereof on the environment. The method aims at providing a first order cause and effect relationship between the environment and the proposed activity. The matrix is designed to indicate the relationship between the different stressors and receptors which leads to specific impacts. The matrix also indicates the specialist studies, which will be submitted as part of the Environmental Impact Report in order to address the potentially most significant impacts.

### **Checklist analysis**

The table below provides a checklist, which is designed to stimulate thought regarding possible consequences of specific actions and so assist scoping of key issues. It consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts. The table highlights certain issues, which are further analysed in matrix format.

**Table:** Environmental checklist

#### **5.1 Matrix analysis**

QUESTION	YES	NO	Un- sure	Description
<b>1. Are any of the following located on the site earmarked for the development?</b>				
I. A river, stream, dam or wetland	✘			The Wetland Area map, indicates some wetlands are present. A wetland assessment was conducted and the assessment will be included in the draft EIR.
II. A conservation or open space area		✘		None
III. An area that is of cultural importance		✘		According to the DEA screening tool the operation falls within a low Archaeological and Cultural Sensitive area.
IV. Site of geological significance		✘		No
V. Areas of outstanding natural beauty		✘		No

VI. Highly productive agricultural land	×			According to the DEA screening tool. The area has both high and medium sensitivity areas. According to the land capability map the application area falls on Class 3.
VII. Floodplain		×		No drainage lines or rivers were observed during the site visit
VIII. Indigenous Forest		×		The land use over the proposed area includes grassland, Cultivated comm fields thicket & woodland.
IX. Grass land	×			The project area falls within the Rand Highveld Grassland as shown on the vegetation map for this proposed application.
X. Bird nesting sites			×	Usure
XI. Red data species			×	Unsure (to be confirmed during the Ecological study
XII. Tourist resort		×		None.
<b>2. Will the project potentially result in potential?</b>				
I. Removal of people		×		None.
II. Visual Impacts	×			Some of the surrounding areas are crop fields. The project area is far away from any main roads and residential areas. The impact will be of low significance
III. Noise pollution		×		Significance of noise pollution is very low
IV. Construction of an access road		×		Access to the site is obtained through means present gravel roads
V. Risk to human or valuable ecosystems due to explosion/fire/ discharge of waste into water or air.		×		None.
VI. Accumulation of large workforce (>50 manual workers) into the site.	×			Approximately +-35 individuals will be employed to operate in the feedlot, abattoir and the rendering plant.
VII. Utilisation of significant volumes of local raw materials such as water, wood etc.	×			Water is abstracted from the existing boreholes



VIII. Job creation	×			Approximately +-35 individuals will be employed to operate in the feedlot, abattoir and the rendering plant.
IX. Traffic generation		×		None.
X. Soil erosion		×		No to very little
XI. Installation of additional bulk telecommunication transmission lines or facilities		×		No
<b>3. Is the proposed project located near the following?</b>				
I. A river, stream, dam or wetland		×		The Wetland Area map, indicates some wetlands are present. A wetland assessment was conducted and the assessment will be included in the draft EIR.
II. A conservation or open space area		×		None
III. An area that is of cultural importance		×		According to the DEA screening tool the operation area is surrounded by low Archaeological and Cultural Sensitive areas.
IV. A site of geological significance		×		No
V. An area of outstanding natural beauty		×		None
VI. Highly productive agricultural land	×			According to the DEA screening tool. The area has both high and medium sensitivity areas. According to the land capability map the application area is surrounded by Class 3 land capability. The southern surroundings are classified as land capability class 6.
VII. A tourist resort		×		None
VIII. A formal or informal settlement		×		The proposed project area is located between Potchefstroom and Vanderbijlpark.

The matrix describes the relevant listed activities, the aspects of the development that will apply to the specific listed activity, a description of the environmental issues and potential impacts, and the significance and magnitude of the potential impacts. The matrix also highlights areas of particular concern for more in depth assessment during the EIA process. Each cell is evaluated individually in terms of the nature of the impact, duration and its significance – should no mitigation measures be applied. This is important since many impacts would not be considered insignificant if proper mitigation measures were implemented. The matrix also provides an indication if mitigation measures are available.

In order to conceptualise the different impacts, the matrix specify the following:

- **Stressor:** Indicates the aspect of the proposed activity, which initiates and cause impacts on elements of the environment.
- **Receptor:** Highlights the recipient and most important components of the environment affected by the stressor.
- **Impacts:** Indicates the net result of the cause-effect between the stressor and receptor.
- **Mitigation:** Impacts need to be mitigated to minimise the effect on the environment.

**MATRIX ANALYSIS**

LISTED ACTIVITY (The Stressor)	ASPECTS OF THE DEVELOPMENT /ACTIVITY	POTENTIAL IMPACTS			SIGNIFICANCE AND MAGNITUDE OF POTENTIAL IMPACTS			MITIGATION OF POTENTIAL IMPACTS	SPECIALIST STUDIES / INFORMATION
		Receptors	Impact description	Minor	Major	Duration	Possible Mitigation		
<b>CONSTRUCTION PHASE</b>									
<p><b>Government Notice 327 Listing Notice 1 Activity 3:</b> <i>The development and related operation of facilities or infrastructure for the slaughter of animals with a (ii) product throughput of reptiles, game &amp; red meat exceeding 6 units per day.</i></p> <p><b>Government Notice 327 Listing Notice 1: Activity 27:</b> <i>The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is require for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i></p> <p><b>Government Notice 327 Listing Notice 1: Activity 4:</b> <i>The development and related operation of facilities or infrastructure for the</i></p>	<p><u>Site clearing, preparation &amp; construction</u> The clearance of indigenous vegetation, and the development of an abattoir, Construction of a cattle feedlot, rendering plant and an access road.</p>	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> <li>Loss or fragmentation of indigenous natural vegetation.</li> <li>Loss of sensitive species.</li> <li>Loss or fragmentation of habitats.</li> </ul>	-		L	Yes	-
			Air quality	<ul style="list-style-type: none"> <li>Air pollution due to the increase of traffic.</li> </ul>			M	Yes	-
			Soil	<ul style="list-style-type: none"> <li>Soil degradation, including erosion.</li> <li>Disturbance of soils and existing land use (soil compaction).</li> <li>Loss of agricultural potential (low significance relative to agricultural potential of the site).</li> </ul>			M	Yes	-
			Geology	<ul style="list-style-type: none"> <li>It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa.</li> </ul>	N/A	N/A	N/A	N/A	-
			Existing services infrastructure	<ul style="list-style-type: none"> <li>Generation of waste that need to be accommodated at a licensed landfill site.</li> <li>Generation of sewage that need to be accommodated by the local sewage plant.</li> </ul>			M	Yes	-
			Ground water	<ul style="list-style-type: none"> <li>Pollution due to construction vehicles.</li> </ul>			M	Yes	-
			Surface water	<ul style="list-style-type: none"> <li>Increase in storm water run-off.</li> <li>Pollution of water sources due to soil erosion.</li> <li>Destruction of watercourses (pans/dams/streams).</li> </ul>			L	Yes	-
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> <li>Job creation.</li> <li>Skills development.</li> </ul>			M	N/A	-
			Visual landscape	<ul style="list-style-type: none"> <li>Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility due to dust.</li> </ul>			S	Yes	-
			Traffic volumes	<ul style="list-style-type: none"> <li>Increase in construction vehicles.</li> </ul>			S	Yes	-

<p>concentration of animals in densities that exceed-</p> <p>(i) 20 square metres per large stock unit and more than 500 units per facility;</p> <p><b>Government Notice 325 Listing Notice 2 Activity 6:</b> The development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding—</p> <p>(i) activities which are identified and included in Listing Notice 1 of 2014;</p> <p>(ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies;</p> <p>(iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or</p> <p>(iv) where the development is directly related to aquaculture</p>		Health & Safety	<ul style="list-style-type: none"> <li>Air/dust pollution.</li> <li>Road safety.</li> </ul>		-	S	Yes	-
		Noise levels	<ul style="list-style-type: none"> <li>The generation of noise as a result of construction vehicles, and people working on the site.</li> </ul>	-		M	Yes	-
		Tourism industry	<ul style="list-style-type: none"> <li>Since there are no tourism facilities in close proximity to the site, the proposed activity will not have an impact on tourism in the area.</li> </ul>	N/A	N/A	N/A	N/A	-
		Heritage resources	<ul style="list-style-type: none"> <li>Removal or destruction of archaeological and/or paleontological sites.</li> <li>Removal or destruction of buildings, structures, places and equipment of cultural significance.</li> <li>Removal or destruction of graves, cemeteries and burial grounds.</li> </ul>	N/A	N/A	N/A	N/A	-

<p>facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day.</p> <p><b>Government Notice 324 Listing Notice 3 Activity 4:</b> The development of a road wider than 4 meters with a reserve less than 13,5 meters (h) North West (ii) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.</p> <p><b>Government Notice 324 Listing Notice 3 Activity 12:</b> The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (h) North West (iv) Critical Biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority (v) Sensitive areas as identified in an environmental management framework as</p>															
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contemplated in chapter 5 of the Act and as adopted by the competent authority;

**OPERATIONAL PHASE**

		BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> <li>Fragmentation of habitats.</li> <li>Establishment and spread of declared weeds and alien invader plants (operations).</li> </ul>	-	-	L	Yes	-
			Air quality	<ul style="list-style-type: none"> <li>Air pollution due to the mining activity, crusher plant and transport of the gravel to the designated areas.</li> </ul>	N/A	N/A	N/A	N/A	-
			Soil	<ul style="list-style-type: none"> <li>Soil degradation, including erosion.</li> <li>Disturbance of soils and existing land use (soil compaction).</li> <li>Loss of agricultural potential (low significance relative to agricultural potential of the site).</li> </ul>	-		S	Yes	-
			Geology	<ul style="list-style-type: none"> <li>Collapsible soil.</li> <li>Seepage (shallow water table).</li> <li>Active soil (high soil heave).</li> <li>Erodible soil.</li> <li>The presence of undermined ground.</li> <li>Instability due to soluble rock.</li> <li>Steep slopes or areas of unstable natural slopes.</li> <li>Areas subject to seismic activity.</li> <li>Areas subject to flooding.</li> </ul>		-	S	Yes	-
			Existing services infrastructure	<ul style="list-style-type: none"> <li>Generation of waste that need to be accommodated at a licensed landfill site.</li> <li>Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant.</li> </ul>	-		L	Yes	-
			Ground water	<ul style="list-style-type: none"> <li>Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies.</li> </ul>	-		L	Yes	-
			Surface water	<ul style="list-style-type: none"> <li>Increase in storm water runoff. The development will potentially result in an increase in storm water run-off that needs to be managed to prevent soil erosion.</li> <li>Destruction of watercourses (pans/dams/streams).</li> </ul>		-	L	Yes	-

				<ul style="list-style-type: none"> <li>Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies.</li> </ul>						
	SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> <li>Job creation.</li> <li>Skills development.</li> </ul>			+	L	Yes	-	
		Visual landscape	<ul style="list-style-type: none"> <li>Abattoir &amp; Rendering plant</li> </ul>			-	L	Yes	-	
		Traffic volumes	<ul style="list-style-type: none"> <li>Increase in vehicles collecting gravel for distribution.</li> </ul>		-		S	Yes	-	
		Health & Safety	<ul style="list-style-type: none"> <li>Air/dust pollution.</li> <li>Road safety.</li> </ul>		-		S	Yes	-	
		Noise levels	<ul style="list-style-type: none"> <li>The proposed development will result in noise pollution during the operational phase.</li> </ul>		-	-	L	Yes	-	
		Tourism industry	<ul style="list-style-type: none"> <li>Since there are no tourism facilities in close proximity to the site, the decommissioning activities will not have an impact on tourism in the area.</li> </ul>		N/A	N/A	N/A	N/A	N/A	-
		Heritage resources	<ul style="list-style-type: none"> <li>It is not foreseen that the proposed activity will impact on heritage resources or vice versa.</li> </ul>		N/A	N/A	N/A	N/A	N/A	

vii. The positive and negative impacts that the proposed activity and alternatives will have on the environment and the community that may be affected, focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.

- Loss or fragmentation of indigenous natural fauna and flora
- Fragmentation or longterm loss of habitats
- The development could result in soil erosion
- Noise disturbance during the construction as well as the operational phase
- The generation of waste (general, construction, sewage and grey water)
- Potential impacts on heritage objects.
- Increased vehicle activity within the area resulting in the possible destruction and disturbance of the road, fauna and flora.
- Access control to portin which may impact on cattle movement, breeding and grazing practices of the surrounding community.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime.
- Increased risk of veld fires due to increase in vehicles.
- Generation of income through the agricultural activities.
- Increase in stormwater runoff, that will have to be managed to prevent soil erosion
- Impacts on ground water due to the increased consumption of water.
- During the decommissioning dust pollution and erosion may occur.

viii. The possible mitigation measures that could be applied and the level of risk.

Refer to section v. of the report where impacts of the proposed development are discussed. Some mitigation measures have also been included. As the project evolves further assessment will be done and mitigation measures will be included into the Environmental Management Programme (EMP'r) of the Environmental Impact Report (EIR).

ix. The outcome of the site selection Matrix.  
A site layout plan as informed by the process of consultation the landowner is attached

Refer to Locality map attached as **Appendix 3** & Layout Map, attached as **Appendix 4**.



- x. Motivation where no alternative sites were considered.

**Section g** of this report considered alternatives. There were no alternatives considered for the type of activity & type of technology. The reason for this is that the applicant already has an operational fedlot and has cattle farming activities operational on the applied farm area, therefore, he would like to expand the activities on the farm and the technology to be used in the applied activities (abattoir and the rendering plant).

- xi. Statement motivating the preferred site.

The site is preferred due to its gradient and the fact that the applicant is in agreement with the landowner to utilise the farm for the applied activities.

H. A PLAN OF STUDY FOR UNDERTAKING THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS TO BE UNDERTAKEN INCLUDING –

- (i) Description of alternatives to be considered including the option of not going ahead with the activity.

The description considers the baseline conditions (status quo) to persist should the no-go alternative be preferred. Should the no go alternative persist, no change will take place. The associated job opportunities and the contribution to the North-West GDP will not be realized.

The location alternative within the preferred site will be informed by the Ecological Study when it is available.

- (ii) Description of the aspects to be assessed as part of the environmental impact assessment process.

**Table:** Aspects to be assessed

Aspects / potential impacts	Description of the aspect	Specialist studies / technical information
Biophysical Environment		
Impacts on the fauna and flora	Refer to Matrix table	EAP assessment (using desktop studies, GIS, site visits and the book written by Mucina and Rutherford(The Vegetation of South Africa, Lesotho and Swaziland)

Impacts on the soil	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on existing services infrastructure	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on ground and surface water	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
<b>Socio / Economic Environment</b>		
Impacts on local employment rate	Refer to Matrix table	EAP assessment (using desktop studies, IDP's and SDF's)
Impacts on visual landscape	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on traffic volumes	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on health & safety	Refer to Matrix table	EAP assessment (desktop studies, site visits)

(iii) Aspects to be assessed by specialists

A hydrogeological report as well as the ecological study have been identified as the necessary specialist studies for this application. They will be respectfully conducted and results incorporated into the EIA & EMP report.

(iv) Proposed method of assessing the environmental aspects including the aspects to be assessed by specialists

The environmental assessment aims to identify the various possible environmental impacts that could result from the proposed activity. Different impacts need to be evaluated in terms of their significance and in doing so highlight the most critical issues to be addressed.

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in the table below.

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

- (v) The proposed method of assessing duration and significance

**Impact Rating System**

Impact assessment must take account of the nature, scale and duration of impacts on the environment whether such impacts are positive or negative. Each impact is also assessed according to the project phases:

- planning
- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact the following criteria is used:

**Table:** The rating system

<b>NATURE</b>		
Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.		
<b>GEOGRAPHICAL EXTENT</b>		
This is defined as the area over which the impact will be experienced.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.

3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
<b>PROBABILITY</b>		
This describes the chance of occurrence of an impact.		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
<b>DURATION</b>		
This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 30 years).

4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite.
<b>INTENSITY/ MAGNITUDE</b>		
Describes the severity of an impact.		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/ component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
<b>REVERSIBILITY</b>		
This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.

3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.

### IRREPLACEABLE LOSS OF RESOURCES

This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.

1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.

### CUMULATIVE EFFECT

This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.

1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects.
2	Low cumulative impact	The impact would result in insignificant cumulative effects.
3	Medium cumulative impact	The impact would result in minor cumulative effects.
4	High cumulative impact	The impact would result in significant cumulative effects

### SIGNIFICANCE

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The calculation of the significance of an impact uses the following formula: (Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.

The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.

Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative high impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

(vi) The stages at which the competent authority will be consulted

Consultation with the competent and commenting authorities will continue throughout the duration of impact assessment phase. The authorities will also comment on whether they deem it necessary to conduct any specialist studies. On-going consultation will include:

- Submission of the Scoping following a 30-day public review period (and consideration of comments received).
- Submission of the EIR following a 30-day public review period (and consideration of comments received).
- Arrangements will be made to discuss the report with the Environmental Officer responsible for the project during the review period.
- An opportunity to visit and inspect the site.

(vii) Particulars of the public participation process with regard to the Impact Assessment process that will be conducted

1. Steps to be taken to notify interested and affected parties.

All registered I&APs and relevant State Departments will be given the opportunity to review the Scoping, EIR and EMP in accordance with Regulation R326. A minimum of 30 days commenting period will be allowed and all stakeholders and I&APs will be given an opportunity to forward their written comments within that period. All issues identified during this public review period will be documented and compiled into a Comments and Response Report to be included as part of the Final EIR to be submitted to the North West Department of Economic Development, Environment, Conservation and Tourism.

2. Details of the engagement process to be followed.

The public participation process will be conducted strictly in accordance with Regulations 39-44. The following three categories of variables will take into account when deciding the required level of public participation:

- The scale of anticipated impacts.
- The sensitivity of the affected environment and the degree of controversy of the project.
- The characteristics of the potentially affected parties.

The following public participation mechanisms will be used:

- Newspaper advertisement in local newspaper
- Site notices
- Direct notification of surrounding land owners and occupiers
- Circulation of scoping report
- Circulation of EIR
- Public participation meeting, over zoom or face-to-face (if requested)
- Direct notification to all stakeholders of the Environmental Authorisation given

3. Description of the information to be provided to Interested and Affected parties  
*(Information to be provided must include the initial site plan and sufficient detail of the intended operation and the typical impacts of each activity, to enable them to assess what impact the activities will have on them or on the use of their land).*



The letter provided to I&As comprises of a activity, extent and location description, including a locality map of the proposed activity and a Dropbox link to the full Scoping report and Appendices. It also indicates where a hard copy of the report can be viewed or if the need arises for a copy of the report a request can be sent to the relevant EAP who will forward a CD containing all the relevant information.

(viii) Description of the tasks that will be undertaken during the environmental impact assessment process

**Tasks to be undertaken:**

The following sections describe the tasks that will be undertaken as part of the EIA process.

- **Project Description**

Further technical and supporting information will be gathered to provide a more detailed project description. This will include a detailed site layout plan that will be compiled once the low – medium areas of sensitivity have been indicated.

- **Location alternatives**

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity.

- **Activity alternatives**

The scoping process also needs to consider if the development would be the most appropriate land use for the particular site.

- **Design and layout alternatives**

Design alternatives were considered throughout the planning and design phase. In this regard discussions on the design were held between the EAP and the applicant. The layout follows the limitations of the site and aspects such as, roads, feedlot, abattoir construction and location of the rendering plant as well as the fencing– refer **Appendix 3 & 4**.

- **No-go alternative**

The description considers the baseline conditions (status quo) to persist should the no-go alternative be preferred. Should the no go alternative persist, no change will take place. The associated job opportunities and the contribution to the North West GDP will not be realized.

- **Compilation of Environmental Impact Report**

An EIR will be compiled to meet the content requirements as per Appendix 3 of GNR326 of the EIA Regulations (April 2017) and will also include a draft Environmental Management Programme containing the aspects contemplated in Appendix 4 of GNR326.

(ix) Measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	POTENTIAL FOR RESIDUAL RISK
Impacts on the fauna and flora	Surface disturbance	Monitor through rehabilitation	Medium
Impacts on the soil	Erosion	Storm water control	Medium
Impacts on noise	Disturbance	Limit working hours	Low
Impacts of waste	Littering	Adequate waste receptables	Low
Impacts on traffic volumes	dust & potential for fires	Dust control measures, firebreaks & regular maintenance	low/Medium
Impacts on ground and surface water	Ground and surface water contamination	Storm water control, avoidance	Medium
Impacts on visual landscape	dust	Dust control measures	low

## I. AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP

I, **Deshney Mapoko** (EAP) herewith confirms

- A. the correctness of the information provided in the reports
- B. the inclusion of comments and inputs from stakeholders and I&APs;
- C. 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



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Signature of the environmental assessment practitioner:

Milnex CC – Environmental Consultants

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Name of company:

19/04/2023

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Date:

## **J. UNDERTAKING REGARDING LEVEL OF AGREEMENT**

I **Deshney Mapoko** herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.



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**Signature of the EAP**

19/04/2023

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**DATE:**

## **K. WHERE APPLICABLE, ANY SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY**

N/A

## **L. ANY OTHER MATTER REQUIRED IN TERMS OF SECTION 24(4)(A) AND (B) OF THE ACT**

All the aspects required in terms of S24(4)(a) (i-v) & S24(4)(b)(i-vii), have been included in the report and will also be include in the Environmental Impact Assessment Report.

**-END-**