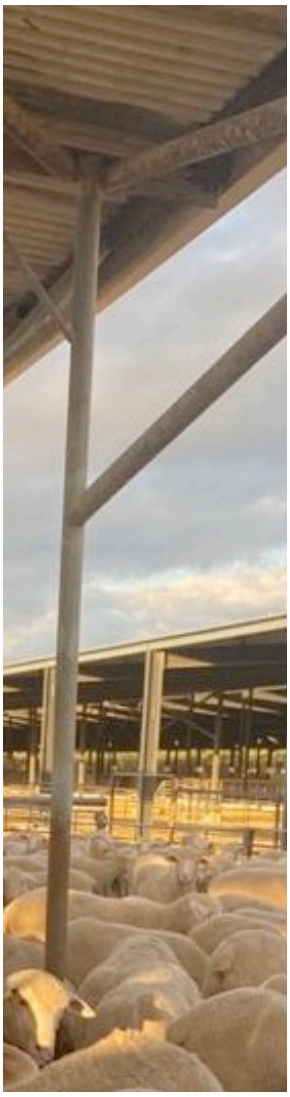
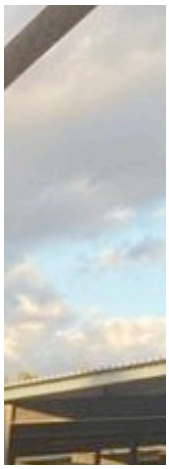
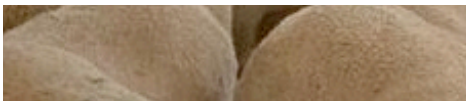
DRAFT BASIC ASSESSMENT REPORT

24 October 2022

THE EXPANSION OF THE SHEEP FEEDLOT ON PORTION 2 OF THE FARM RIETFONTEIN NO. 173 NEAR STEYNSRUS, FREE STATE PROVINCE


ENVIRONAMICS

PROJECT DETAIL

Reference No.:	To be obtained
Project Title:	The Expansion of the Sheep Feedlot on Portion 2 of the farm Rietfontein No. 173 near Steynsrus, Free State Province.
Authors:	Mrs. Marélie Botha Mrs. Lisa de Lange Ms Tshepho Mamashela
Client:	Tlios (Pty) Ltd.
Report:	Draft Basic Assessment Report
Report date:	24 October 2022

When used as a reference this report should be cited as: Environamics (2022) Basic Assessment Report: The Expansion of the Sheep Feedlot on Portion 2 of the farm Rietfontein No. 173 near Steynsrus, Free State Province, 2022.

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

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

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

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authorityin terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **07 April 2017**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt bythe competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

LIST OF FIGURES

APPENDICES

Appendix A: Maps

- Appendix A1: Locality Map
- Appendix A2: Regional Map
- Appendix A3: Footprint Map
- Appendix A4: Land Capability Map
- Appendix A5: Vegetation Map
- Appendix A6: Critical Biodiversity Map
- Appendix A7: Sensitivity Map

Appendix B: Photographs

Appendix C: Facility Illustration(s)

Appendix D: Specialist Report

- Appendix D1: Ecological and Wetland Impact Assessment
- Appendix D2: Heritage Impact Assessment
- Appendix D3: Palaeontological Impact Assessment
- Appendix D4: Stormwater Management Plan

Appendix E: Public Participation Process

- Appendix E1: Press advertisements and Site Notice
- Appendix E2: Proof of correspondence
- Appendix E3: Comments and Response Report
- Appendix E4: Written Comments Received
- Appendix E5: Written comments received
- Appendix E6: List of I&APs

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

GLOSSARY OF TERMS AND ACRONYMS

BA	Basic Assessment
BAR	Basic Assessment Report
CEA	Cumulative Effects Assessment
DFFE	Department of Forestry, Fisheries and the Environment
DM	District Municipality
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
EP	Equator Principles
EPFI	Equator Principles Financial Institutions
Environmental impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.
GNR	Government Notice Regulation
I&AP	Interested and affected party
IDP	Integrated Development Plan
IFC	International Finance Corporation
Mitigate	Activities designed to compensate for unavoidable environmental damage.
NEMA	National Environmental Management Act No. 107 of 1998
NWA	National Water Act No. 36 of 1998
PPP	Public Participation Process
SAHRA	South African Heritage Resources Agency
SDF	Spatial Development Framework
VU	Vegetation Unit

CONTEXT FOR THE DEVELOPMENT

Livestock farming is South Africa's largest agricultural sector, accounting for over 40% of agricultural output's total value and occupying roughly 80% of available agricultural land. In rural areas, animal farming is often the primary income generator and to many South Africans, livestock is also a form of social capital. Although primary agriculture only makes up a small portion of the Country's GDP, it is crucial for creating jobs and generating export revenue. Many animal farmers have a wealth of institutional knowledge; operating farms that have been in the family for generations.

Sheep farming is practiced in all provinces throughout South Africa but is traditionally concentrated in the more arid regions of the country. Although the income derived from sheep farming is modest compared to other livestock produced the industry is vital in the rural and arid regions of South Africa. Meat production is aimed at local consumption, although limited quantities are exported to neighbouring countries. The exact number of sheep farmed in SA is unknown, but according to the Department of Agriculture, Forestry and Fisheries, the number was around 28 million in 2011.

In some cases, sheep farmers stock livestock that are not ready for the market and grow them themselves to reach a specific weight deemed acceptable by meat processors. This is referred to as a feedlot. The basic principle of a feedlot is to increase the amount of fat gained by each animal as quickly as possible; if animals are kept in confined quarters rather than being allowed to range freely over grassland, they will gain weight rapidly and efficiently with the added benefit of economies of scale. The feedlot sector represents an intensive production system with the goal of growing and or fattening cattle until they reach slaughter weight. The feedlot sector can be further divided into growing (backgrounding) and finishing (fattening) phases. The proposed project will be for the finishing of the livestock. The finishing phase focuses on feeding high-grain/low-forage rations to sheep until they reach a prescribed finish (fat cover) before marketing for slaughter.

The project falls in the Free State Province and according to the provincial Spatial Development Framework (PSDF), it aligns with the Free State Provincial Growth and Development Strategy which has committed the Free State to 'building a prosperous, sustainable and growing provincial economy which reduces poverty and improves social development'. The PSDF is a policy document that promotes a 'developmental state' in accordance with national and provincial legislation and directives. It aligns with the Free State Provincial Growth and Development Strategy which has committed the Free State to 'building a prosperous, sustainable and growing provincial economy which reduces poverty and improves social development'. The PSDF includes comprehensive plans and strategies that collectively indicate which type of land-use should be promoted in the province, where such land-use should take place, and how it should be implemented and managed.

The PSDF includes comprehensive plans and strategies that collectively indicate which type of land-use should be promoted in the province, where such land-use should take place, and how it should be implemented and managed PSDF is a policy document that promotes a 'developmental state' in accordance with national and provincial legislation and directives. It aligns with the Free State Provincial Growth and Development Strategy which has committed the Free State to 'building a prosperous, sustainable and growing provincial economy which reduces poverty and improves social development'.

EXECUTIVE SUMMARY

The Tlios (Pty) Ltd feedlot is an operational sheep feedlot located on Portion 2 of the farm Rietfontein No. 173, located near Steynsrus within the Moqhaka Local Municipality, Free State Province. The operation consists of arranged feeding of sheep in confined pens, for finishing (in laymen's terms, fattening) of sheep, prior to slaughter. The aim of the feedlot is to produce livestock for slaughter that will best answer the growing need of the consumer.

The existing feedlot has been operational since 2019, currently housing 1 600 sheep in 24 camps which cover an area of 5 100m^2, with a density of 5.1m^2 per stock unit. The entire operation, which includes shearing and feed sheds, manure dump etc., covers an area of approximately 2 hectares (ha).

Tlios (Pty) Ltd is proposing the expansion to operations with the expansion proposed to consist of 23 400 sheep housed in 100 camps, which will cover an area of approximately 30 800m^2 (~3ha) with an estimated density of 3.8m^2 per stock unit. The associated infrastructure for the expansion will consist of a feed shed, feed line, loading facility, shearing shed etc.

In terms of the National Environmental Management Act (Act 107 of 1998), with specific reference to Sections 24 and 24D, as read with GNR 324-327, as amended (2017), Environmental Authorisation is required for the Tlios (Pty) Ltd feedlot expansion. The following listed activities have been identified with special reference to the proposed development and is listed in the EIA Regulations (as amended):

- Activity 4 (ii) (GN.R 327): "*The development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed— 8 square meters per small stock unit*"
- Activity 27 (GN.R 327): "*The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation*"
- Activity 39 (ii)(a) (GN.R 327): "*The expansion and related operation of facilities for the concentration of animals in densities that will exceed (ii) 8 square meters per small stock unit, where the expansion will constitute more than; (a) 1 000 additional units per facility or more unit*"
- Activity 4 (b)(i)(ee) (GN.R 324): *"The development of a road wider than 4 metres with a reserve less than 13,5 metres (b) in the Free State, (i) outside urban areas and within (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."*
- Activity 12 (b)(i)(ii) (GN.R 324): "*The clearance of an area of 300 square metres or more of indigenous vegetation (b) in the Free State (i) within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004 and (ii) within critical biodiversity areas identified in bioregional plans*) ."
- Activity 18 (b)(i)(ee)(GN.R 324): "*The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre (b) in the Free State (i) outside urban areas, within (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans*"

The proposed Tlios (Pty) Ltd feedlot expansion triggers activities which are listed under Listing Notice 1 and 3 (GNR 327 & 324), implying that the development could potentially have an impact on the environment that will require mitigation. Subsequently a Basic Assessment process is required to be followed as described in Regulations 19 and 20 of the EIA Regulations (as amended). Environamics has been appointed as the independent Environmental Assessment Practitioner to undertake the Basic Assessment (BA) on behalf of The Tlios (Pty) Ltd.

Regulation 19 of the EIA Regulations (2017) requires that a Basic Assessment Report (BAR) must contain the information set out in Appendix 1 of the Regulations or comply with a protocol or minimum information requirements relevant to the application as identified and gazetted by the Minister in a government notice. Appendix 1 of GNR326 requires that the environmental outcomes, impacts and residual risks of the proposed activity be set out in the BAR. It has been determined through the BA process that the proposed development will have a net positive impact for the area and will subsequently ensure the optimal utilisation of resources and land. All negative environmental impacts can be effectively mitigated through the recommended mitigation measures and no residual negative impacts are foreseen. The potentially most significant environmental impacts associated with the development are briefly summarized below.

Impacts during the construction phase:

The expansion of the Tlios (Pty) Ltd feedlot project will potentially result in the following impacts: impacts on habitats, invasion of alien plants, and impacts to fauna and flora, or influx of job seekers, impact of the presence of construction workers on the local communities, increased risk of veld fires, impacts on daily living and movement patterns and generation of waste. Socio-economic impacts such as the creation of local employment and business opportunities, skills development and training and technical support to local farmers and municipalities will be positive impacts emanating from the construction.

Impacts during the operational phase:

The negative impacts are generally associated with impacts on the fauna and flora, spread and establishment of alien invasive species, local air pollution from manure concentration and the generation of manure during the lifespan of the project. Policy and technologies such as anaerobic digesters, which convert manure to energy, can reduce such impacts. The generation of solid waste and dust will be evident during the construction and operational phases of the proposed sheep feedlot, however, this can be mitigated by separation on site and disposing at a registered landfill. The operational phase will have a direct positive impact through the provision of employment opportunities for its duration, increase in food production, and the generation of income to the local community.

Impacts during the decommissioning phase:

Decommissioning is not anticipated for the proposed feedlot expansion. The decommissioning phase will however potentially result in impact on the fauna and flora, dust impacts, and the loss of permanent employment. Skilled staff will be eminently employable, and a number of temporary jobs will also be created in the process.

Cumulative impacts:

The cumulative impact for the proposed expansion is medium to low and no high, unacceptable impacts related to the project is expected. This is based on the fact that the proposed development is

for the expansion of an existing feedlot and therefore the project will not result in whole-scale / unacceptable change to the environment.

In accordance with the EIA Regulations, this draft BAR evaluates and rates each identified potential impact and identifies and recommends mitigation measures which will be required in order to ensure the reduction of the impact significance of negative impacts to acceptable levels and the avoidance of negative residual risks. This draft BAR also contains information that is required by the competent authority (Free State Department of Small Business Development, Tourism and Environmental Affairs (DESTEA)) to consider the Application for Environmental Authorisation and to reach a decision contemplated in Regulation 20 of GNR 326. No fatal flaws or impacts with unacceptable levels of significance were identified. The impacts from the proposed development are expected to be at an acceptable level with the implementation of mitigation measures and therefore the project can be authorised subject to the implementation of the recommended mitigation measures.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	**YES**	~~NO~~

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

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

The Tlios (Pty) Ltd feedlot is an operational sheep feedlot located on Portion 2 of the farm Rietfontein No. 173, located near Steynsrus within the Moqhaka Local Municipality, Free State Province. The operation consists of arranged feeding of sheep in confined pens, for finishing (in laymen's terms, fattening) of sheep, prior to slaughter. The aim of the feedlot is to produce livestock for slaughter that will best answer the growing need of the consumer.

The existing feedlot has been operational since 2019, currently housing 1 600 sheep in 24 camps which cover an area of 5 100m^2, with a density of 5.1m^2 per stock unit. The entire operation, which includes the shearing and feed sheds, manure dump etc., covers an area of approximately 2 hectares (ha). Tlios (Pty) Ltd is proposing the expansion to operations with the expansion proposed to consist of
23 400 sheep housed in 100 camps, which will cover an area of approximately 30 800m2 (~3ha) with an estimated density of 3.8m2 per stock unit. The associated infrastructure for the expansion will consist of a feed shed, feed line, loading facility, shearing shed etc.

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

Regulations No. 326, 327, 325, 324 of 07 April 2017 and Regulation No. 517 of 11 June 2021 promulgated in terms of Section 24(5) and 44 of the National Environmental Management Act, (107 of 1998) determine that an Environmental Impact Assessment (EIA) process should be followed for certain listed activities, which might have a detrimental impact on the environment. According to Regulation No. 326 the purpose of the Regulations is: *"…to regulate the procedure and criteria as contemplated in Chapter 5 of the Act relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations for the commencement of activities, subjected to environmental impact assessment, in order to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto*".

The EIA Regulations No. 324 & 327 outline the activities for which a Basic Assessment (BA) process should apply. When considering the proposed development, relating to the expansion of an existing operational feedlot, the following definition for expansion (GNR327) is relevant:

"Expansion" means the modification, extension, alteration, or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity in increased."

The above definition is relevant to the proposed development as both the capacity and footprint of the existing operational feedlot will be expanded.

Listed activity as described in GN 327,325 and324	Description of project activity
GNR.327, 07 April 2017, Activity 4 (ii): *"The development and related operations of facilities or infrastructure for the concentration of animals (for the purpose of commercial production) in densities that exceed (ii) 8 square metres per small stock unit..."*	- The sheep feedlot will accommodate an additional 25 000 sheep with a density of ~4m^2 per small stock unit.
GNR.327, 07 April 2017, Activity 27: *"The clearance of 1 hectares or more, but less than 20 hectares of indigenous vegetation."*	- The expansion of the feedlot will require the clearing of up to 2 hectares of indigenous vegetation.
GNR. 327, 07 April 2017, Activity 39(ii)(a): *"The expansion and related operation of facilities for the concentration of animals in densities that will exceed (ii) 8 square meters per small stock unit, where the expansion will constitute more than (a) 1000 additional units per facility or more.*	- The expansion of the existing operational feedlot will result in a density of ~4m^2 per small stock unit and will include the addition of up to 23 400 small stock units (i.e., sheep).
GNR 324, 07 April 2017, Activity 4(b)(i)(ee): *"The development of a road wider than 4 metres with a reserve less than 13,5 metres, (b) in the Free State province, (i) outside urban areas, (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans"*	- The expansion the feedlot will require additional roads to be built. The road will be wider than 4 metres with a reserve less than 13,5 metres. The site is located within the Free State province, outside urban areas and within a CBA 1.
GNR.324, 07 April 2017, Activity 12(b)(i)(ii): *"The clearance of an area of 300 square meters or more of indigenous vegetation in the (b) Free State within (i) any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (ii) Critical biodiversity areas identified in bioregional plans."*	- The expansion of the feedlot will require the clearing of up to 2 hectares of indigenous vegetation. Furthermore, the area proposed for the expansion is located within the endangered Vaal-Vet Sandy Grassland and a critical biodiversity area as identified in bioregional plans.
GNR 324, 07 April 2017, Activity 18(b)(i)(ee): *"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre, (b) in the Free State province, (i) outside urban areas, (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.*	- The expansion the feedlot will require roads to be lengthened. The road will be wider than 4m. Furthermore, the site is located within the Free State province, outside urban areas and within a CBA 1.

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

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

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 326, Regulation 2014 as amended. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

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

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

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Portion 2 of the Farm Rietfontein No. 173 near Steynsrus, Free State Province	28˚01'15.22" S	27˚36'40.34" E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative: Access Road	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity	28° 1'7.43"S	27°36'45.62"E
• Middle/Additional point of the activity	28° 1'9.07"S	27°36'43.29"E
• End point of the activity	28° 1'11.45"S	27°36'41.34"E
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

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

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

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The development will consist of approximately 20 camps, which will house in total approximately 23 400 sheep. This operation will be supported by administration office, 'hospital', wool shearing facilities and silos for feed for the sheep.	28° 1'14.88"S	27°36'38.81"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
No technology alternatives are being considered or are available for the development based on the specific requirements associated with the expansion of the feedlot.
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)		
The design of the proposed expansion was informed by the Storm Water Management Plan (SWMP) (Appendix D4) to optimize the layout and make provision for a system that controls runoff from contaminated areas. The SWMP was performed in line with (international) guidelines and best practices specific to SWMPs for feedlots and in adherence with specialist study requirements in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and requirements of Appendix D of the South African National Water Act (Act No. 36 of 1998) (NWA) regulations.		
Alternative 2		
Alternative 3		

e) No-go alternative

This alternative considers the option of 'do nothing' and maintaining the status quo of the current operational feedlot. The description provided in section 9 of this report could be considered the baseline conditions (status quo) to persist should the no-go alternative be preferred. The site is currently zoned for agricultural activities. The farm is currently being utilised for a small sheep feedlot and grazing purposes (with limited options of crop production due to climatic and moisture limitations and challenges as well as the size of the farm in question). Should the proposed activity of the expansion of the feedlot, not proceed, the site will remain unchanged and will continue to be used for grazing and the small feedlot operation. The potential opportunity costs in terms of the additional income through the expansion of the feedlot, food security and the supporting social and economic development in terms of job opportunities in the area, would be lost if the status quo persists. Also an opportunity would be lost to expand and already existing and operational facility which essentially will concentrate the impacts associated with such development in one area rather than to distribute it throughout the landscape. The expansion of the Tlios Feedlot will benefit not only the landowner but also the surrounding community and food persistence of food security in the country.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	**Size of the activity:**
Alternative A1[1] (preferred activity alternative)	~30 800 m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

Alternative:	**Size of the site/servitude:**
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

4. SITE ACCESS

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

Describe the type of access road planned:

The Tlios Feedlot is located on Portion 2 of the Farm Rietfontein No. 173 near Steynsrus, Free State Province. Ready access to the site exists via an existing gravel road and farm access road. The locality map (Appendix A) provides an illustration of the accessible routes to the site as well as the proximity of the town of Steynsrus, to the site.

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

5. LOCALITY MAP

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

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

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

The Locality and Regional Maps are included as Appendix A1 and A2, respectively.

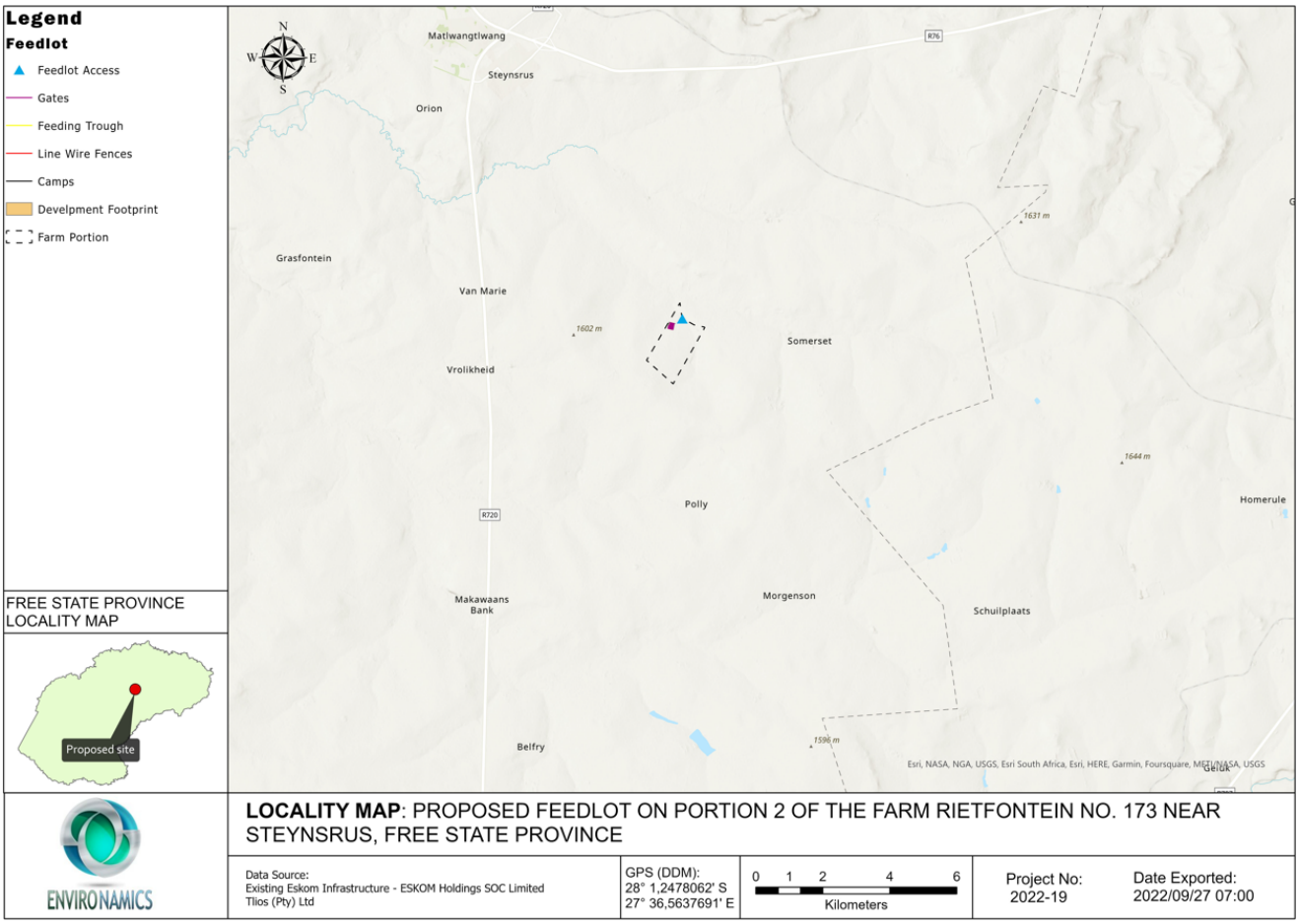


Figure A: Locality Map

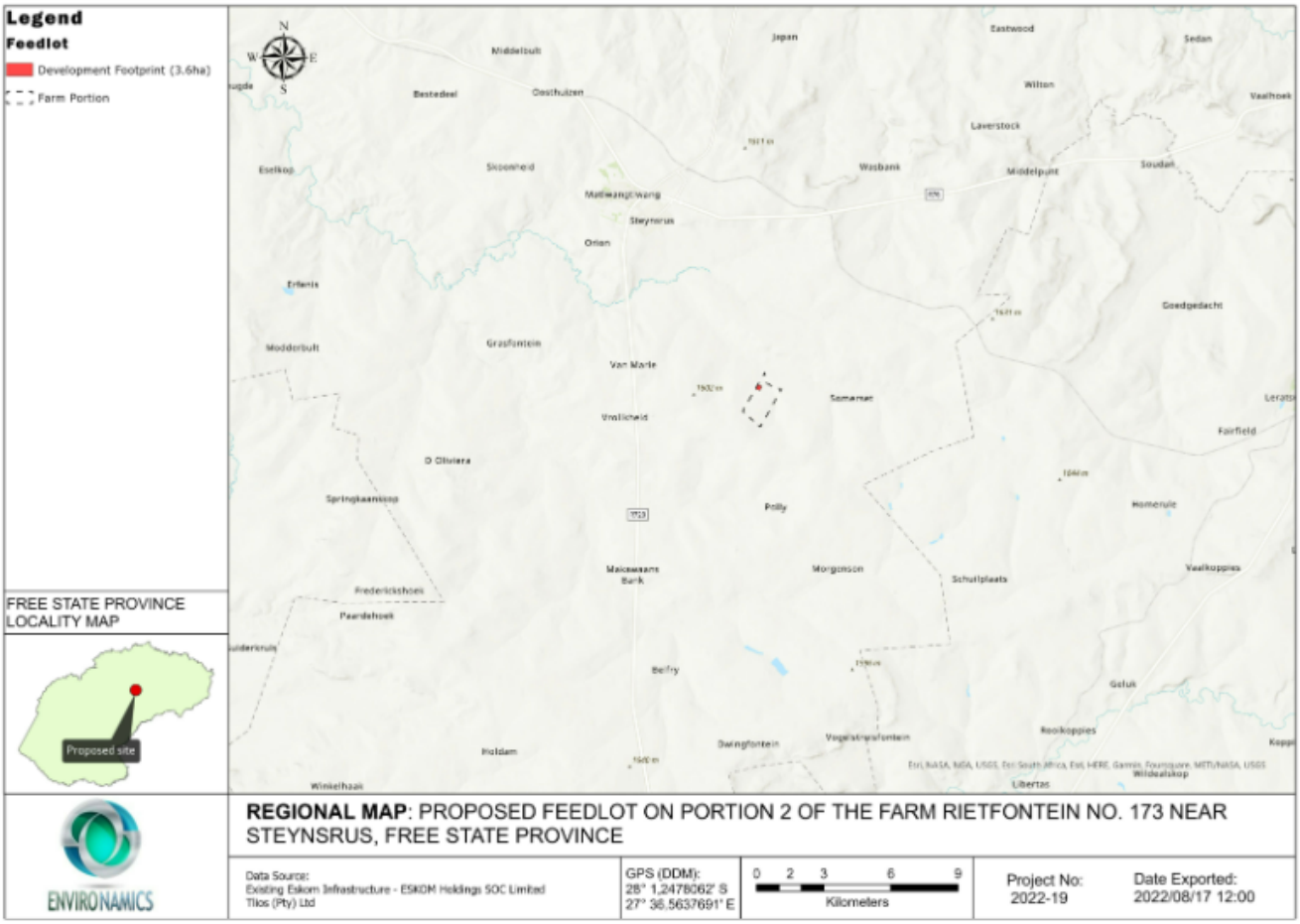


Figure B: Regional Map

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

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

The Layout Map is included as Appendix A3 to the report.

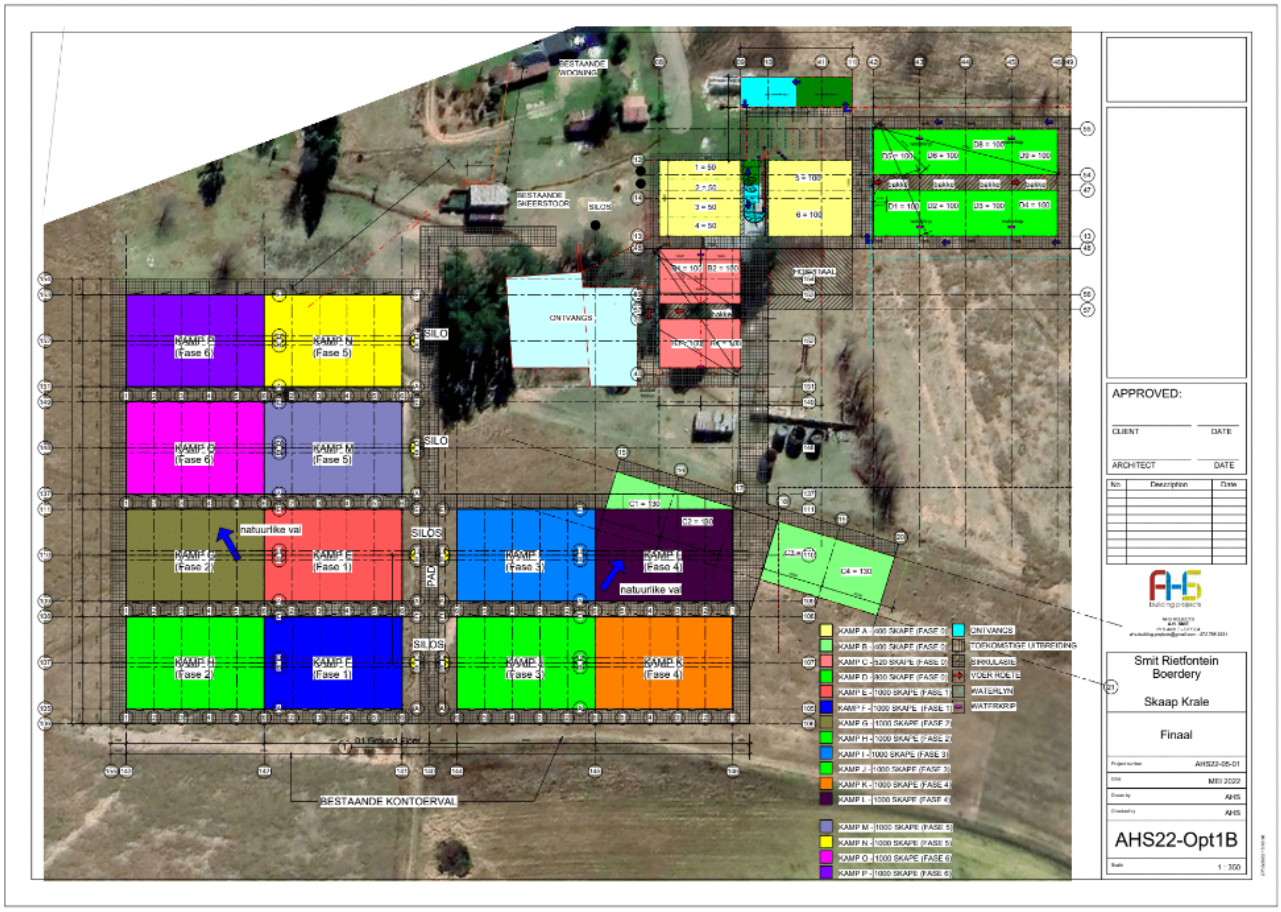


Figure C: Layout Plan

7. SENSITIVITY MAP

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

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

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

The Sensitivity Map is included as Appendix A4 to the report.

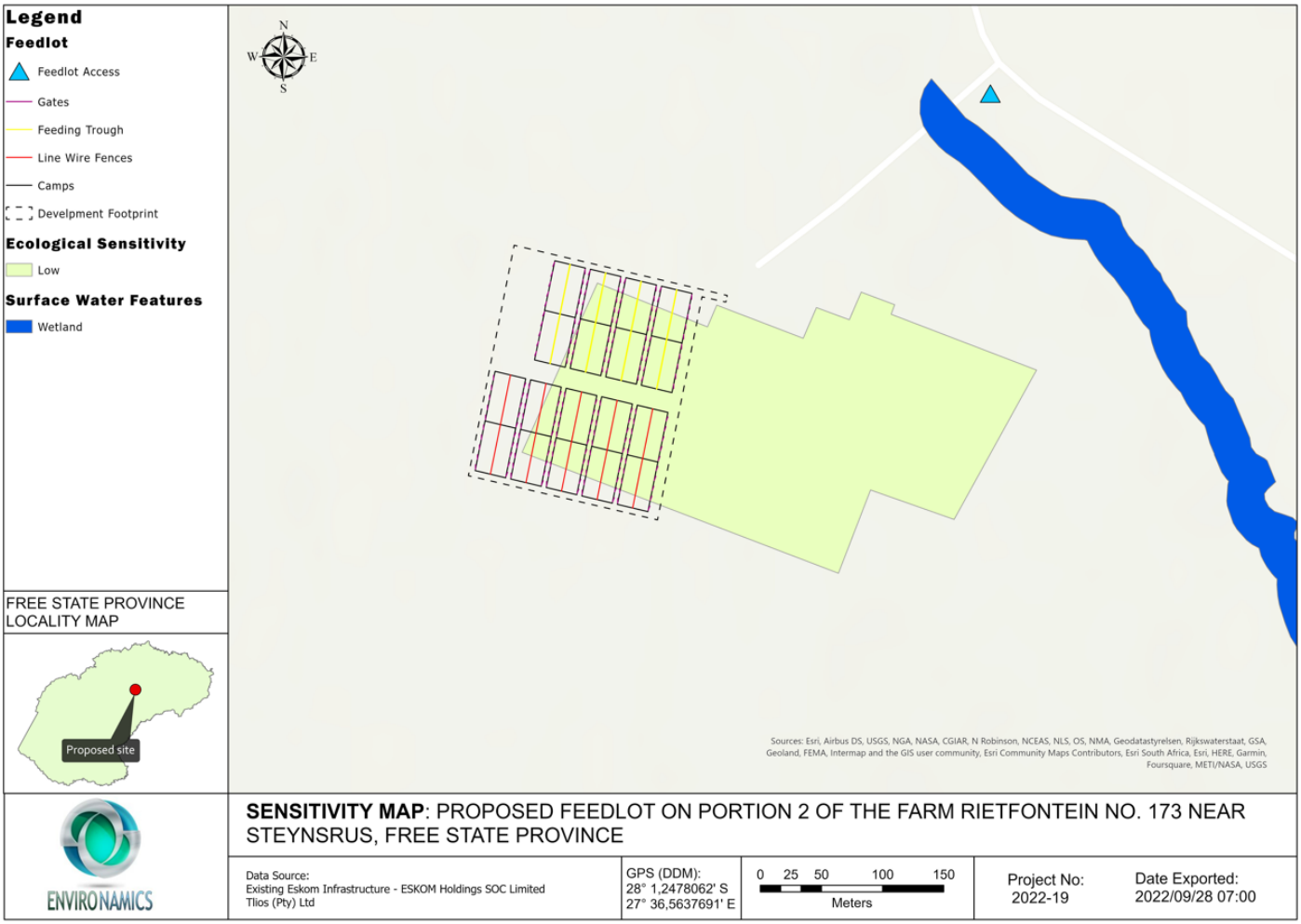


Figure D: Sensitivity Map

8. SITE PHOTOGRAPHS

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

Site photographs are included as Appendix B to this report.

9. FACILITY ILLUSTRATION

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

The Facility Illustrations are included as Appendix C to this report.

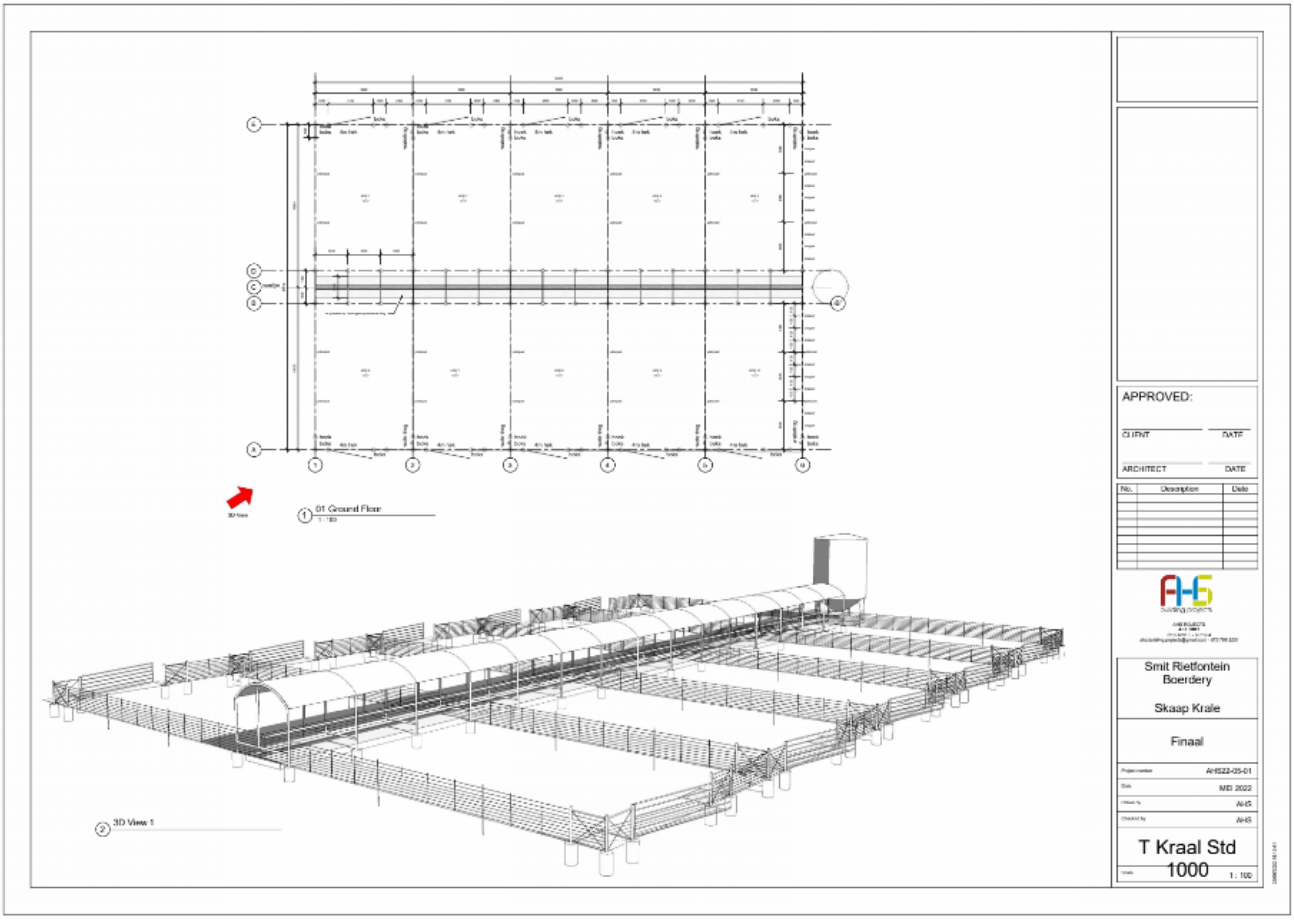


Figure E: Facility Illustration

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	~~YES~~	**NO**	Please explain
Portion 2 of the farm Rietfontein 173, Steynsrus falls within the jurisdiction area of the Moqhaka Local Municipality and as such is subject to the prevailing By-Laws and Land Use Scheme of the Municipality. In terms of the aforementioned pieces of legislation, a Land Use Application for the conducting of an intensive life-stock keeping facility (feedlot) has been lodged with the Moqhaka Local Municipality. Even though the activity is for the expansion of an existing feedlot within the same property the proposed activity will still need to be permitted in terms of the existing land use rights.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES**	~~NO~~	Please explain
The Free State PSDF is a policy document that promotes a 'developmental state' in accordance with national and provincial legislation and directives. It aligns with the Free State Provincial Growth and Development Strategy which has committed the Free State to 'building a prosperous, sustainable and growing provincial economy which reduces poverty and improves social development'. The PSDF includes comprehensive plans and strategies that collectively indicate which type of land-use should be promoted in the province, where such land-use should take place, and how it should be implemented and managed. In broad terms, the PSDF: o Indicates the spatial implications of the core development objectives of the Free State Provincial Growth and Development Strategy. o Serves as a spatial plan that facilitates local economic development. o Lays down strategies, proposals and guidelines as it relates to sustainable development. o Facilitates cross-boundary co-operation between municipalities, adjoining provinces, and bordering countries. o Serves as a manual for integration and standardisation of the planning frameworks of all spheres of government in the province. The Free State Provincial Growth and Development Strategy states that sustainable economic development is the only effective means by which the most significant challenge of the Free State, namely poverty, can be addressed is. The PSDF gives practical effect to sustainable development, which is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The proposed feedlot expansion would therefore be in line with spatial plan that facilitates local economic development which will in turn help achieve the needs of the current generation, and when implemented with the proposed mitigations, without compromising the ability of the future generations to meet their own need.			
(b) Urban edge / Edge of Built environment for the area	~~YES~~	**NO**	Please explain
The proposed activity is not located within the urban edge and is located approximately 9km south-east of the town of Steynsrus.			

(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?).	**YES**	~~NO~~	Please explain
The vision of the Moqhaka LM is to "…strive to *be a Municipality that creates an enabling environment for socio economic growth and sustainable development."* The Mission Statement is *"To maintain and enhance quality of life by providing effective, efficient quality and affordable services equitably and facilitating sustainable socio-economic growth through active community participation."* The Moqhaka Local Municipality IDP 2017-2022 has indicated that food security is listed as one of the 12 National outcomes. The 2020 vision of the Moqhaka Local Municipality SDF (2020) is: *"A regional and national role-player, serving the Free State and beyond, cognisant of the natural environment, promoting social and economic inclusion through mining, tourism, industrial and agri-industrial related development."* The Spatial Development Goals in terms of the Agricultural Areas of the Municipality are: - Enhancement of current predominant agri-industrial development focus, with access to agricultural land, commonage and all urban agriculture endeavors to the benefit of the broader community. - Responsible utilisation and control measures (carrying capacity) of commonage and agricultural resources and the protection of high potential agricultural land. The feedlot will therefore enhance the agri-industrial development focus of the municipality and will also not threaten high potential agricultural land. (Refer to Appendix A5 for the land capability map).			
(d) Approved Structure Plan of the Municipality	**YES**	~~NO~~	Please explain
According the Moqhaka SDF (2020), the spatial development goals in terms of Agricultural Areas, should enhance agri-industrial developments. As the proposed activity is for the expansion of an existing feedlot which will increase agricultural development and output for the area there will be an associated enhancement of agro-industrial developments.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	~~YES~~	**NO**	Please explain
(f) Any other Plans (e.g. Guide Plan)	~~YES~~	**NO**	Please explain
N/A			

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	**YES**	~~NO~~	Please explain
Portion 2 of the farm Rietfontein No. 173, Steynsrus falls within the jurisdiction area of the Moqhaka Local Municipality and as such is subject to the prevailing By-Laws and Land Use Scheme of the Municipality. In terms of the aforementioned pieces of legislation, a Land Use Application for the conducting of an intensive life-stock keeping facility (feedlot) has been lodged with the Moqhaka Local Municipality. The activity is also in line with the programmes identified as priorities within the approved Municipal IDP and SDF.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	**YES**	~~NO~~	Please explain
From a strategic level the expansion of the existing feedlot on the affected property is of a national concern as the development will aid in increased security of food and meat productions within the country. Also as the proposed activity is an expansion of an existing feedlot, the need for the activity is already indicated through the fact that a feedlot is already operational. From a local level the activity will enhance and expand the current agricultural sector of the area which will also increase the current socio-economic opportunities and advantages of the existing feedlot such as job opportunities.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additionalcapacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	~~YES~~	**NO**	Please explain
As the proposed activity is for the expansion of an existing feedlot, which already has access to the required services for the operation thereof it is confirmed that the services are available in the area. Regarding the available capacity of the services to accommodate the expansion of the feedlot it is assumed that the services will be available for use as the expansion is not extensive, and mostly relates to normal household waste.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	**YES**	~~NO~~	Please explain
As the proposed activity is for the expansion of an existing feedlot which has been operational in the municipal area for a number of years it can be confirmed that the development/expansion forms part of the infrastructure planning of the municipality. Comments from the Municipality will be sought as part of the public participation process and submitted to the competent authority for decision-making			

as part of the final Basic Assessment Report. Where comments are not submitted by the Municipality, proof of the attempts made to obtain comment will be included in the final Basic Assessment Report.

7. Is this project part of a national programme to address an issue of national concern or importance?	**YES**	~~NO~~	Please explain

The agricultural sector in South Africa plays a valuable role in ensuring the sustainable supply of food to our growing population and represents one of the main sources of revenue. The expansion of the existing feedlot therefore plays a role to alleviate an issue of national concern relating to hunger, poverty and food security.

8. Do location factors favour this land use (associated with theactivity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	**YES**	~~NO~~	Please explain

The activity is an agricultural activity, which falls in line with the SDF of the municipality.

Furthermore, the location is favourable for the proposed land use as the affected property is currently being used for agricultural activities, including an existing feedlot. The proposed expansion is in line with the current land use activities within the affected property and is therefore favourable and desired.

9. Is the development the best practicable environmental option for this land/site?	**YES**	~~NO~~	Please explain

The proposed site for the placement of the expansion of the feedlot is considered as the most environmentally suitable area within the affected property based on the consideration of sensitive environmental features present within the affected property that have been avoided and to ensure that impacts to these features are avoided and minimized as much as possible. Also, the fact that the activity is for the expansion of an existing feedlot it is considered to be appropriate to develop within this property that has already been affected by the associated farming activities related to the existing feedlot.

10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	**YES**	~~NO~~	Please explain

The benefits associated with the expansion will increase the overall benefit of the existing agricultural activities being undertaken on the affected property. Negative impacts on the environment have been considered since the commencement phase of the development through the placement of the site within an area which avoids sensitive environmental features. Furthermore, site specific mitigation measures have been suggested by the independent specialists that form part of the Environmental Management Programme (EMPr) that will need to be implemented throughout the life cycle of the feedlot expansion.

Furthermore, any comments or issues raised for consideration by I&APs will be recorded, considered and addressed accordingly. Where mitigation measures have not already been recommended for the mitigation of the negative impacts, additional measures will be recommended for implementation by either the relevant independent specialist or the Environmental Assessment Practitioner.

11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	~~YES~~	**NO**	Please explain

Agricultural activities are being undertaken throughout the entire area, as well as the areas surrounding the affected property. Furthermore, there are currently agricultural activities being undertaken on the affected property, including an existing feedlot. Therefore, the proposed land use will not set a precedent for similar activities in the area, it will only expand on the existing agricultural land use currently being undertaken.

12. Will any person's rights be negatively affected by the proposed activity/ies?	~~YES~~	**NO**	Please explain
After addressing all issues raised by the I&APs, impacts identified during the impact assessment and implementing all the proposed mitigations, no rights of the surrounding landowners nor the surrounding environment will be negatively affected. The affected landowner has also provided landowners consent for the undertaking of the Basic Assessment process and proposed development.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	~~YES~~	**NO**	Please explain
The affected property on which the activity is proposed falls outside of the urban edge and therefore the development will not compromise or affect the urban edge defined by the local municipality.			
14. Will the proposed activity/ies contribute to any of the 17Strategic Integrated Projects (SIPS)?	**YES**	~~NO~~	Please explain
It is expected that the expansion of the existing feedlot will contribute to SIP 11 11. Agri-Logistics and Rural Infrastructure.			
15. What will the benefits be to society in general and to the local communities?			Please explain
The proposed development will have a positive impact in the local community as it will be producing sheep for meat, and it will create a larger number of employment opportunities in the long term. The proposed development will provide numerous permanent employment opportunities for the lower-income community within the area. Furthermore, the landowner will also benefit from the expansion through economic growth and development on the affected property which in turn may assist with the current land use activities being undertaken.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
Food security and the lack of knowledge are two of the main concerns in the local farming sector and general communities of the Free State Province. The feedlot will provide job opportunities as well as the opportunity to teach local communities. Furthermore, additional work for contractors in the local area will become available.			
17. How does the project fit into the National Development Plan for 2030?			Please explain
The National Development Plan aims to eliminate poverty and reduce inequality by 2030. South Africa can realise these goals by drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society. According to the National Development Plan, rural communities require greater social, economic and political opportunities to overcome poverty. To achieve this, agricultural development should introduce a land-reform and job creation/livelihood strategy that ensures rural communities have jobs. Considering the above, the expansion of the feedlot will assist the local community, albeit to a limited extent, with greater opportunities to overcome poverty, mainly through the availability of job opportunities.			
18. Please describe how the general objectives of Integrated Environmental Management asset out in section 23 of NEMA have been taken into account.			
The objectives listed in Section 23 of NEMA have been considered and met through: • Identifying, predicting and evaluating the potential positive and negative impacts on the			

environment associated with the proposed expansion of the existing feedlot as part of this Basic Assessment process.

- Undertaking of independent specialist studies to inform the impact assessment, including impacts on the biophysical, social and heritage/cultural environments.
- Consideration has been given to the mitigation hierarchy which has led the Applicant to place the site on which the expansion will take place in an area that avoids the environmental sensitivities present within the affected property.
- A public participation process has been undertaken as per the requirements of the EIA Regulations in order to ensure all I&APs and stakeholders are afforded the opportunity to participate in decisions that affect their environment.
- The Environmental Management Programme provides appropriate mitigation measures for the reduction of the negative impact significance to acceptable levels.

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

The principles of section 2 of NEMA have been considered throughout this Basic Assessment process in order to ensure that the proposed development will be appropriate from both an environmental and social perspective and that the proposed expansion will be sustainable without having a detrimental impact on the biophysical and social environments.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
Constitution of South Africa (No. 108 of 1996)	The Constitution of South Africa (No. 108 of 1996) cannot manage environmental resources as a stand-alone piece of legislation hence additional legislation has been promulgated in order to manage the various spheres of both the social and natural environment. Each promulgated Act and associated Regulations are designed to focus on various industries or components of the environment to ensure that the objectives of the Constitution are effectively implemented and upheld in an on-going basis throughout the country. In terms of Section 7, a positive obligation is placed on the State to give effect to the environmental rights.	All spheres of government	1996
National Environmental	The application for the	National Department	2017

Management Act No. 107 of 1998	proposed expansions of the existing feedlot consists only of activities listed under Notice No. R327 and therefore a Basic Assessment Report must be submitted for Environmental Authorization from the Local Authority.	of Forestry, Fisheries and the Environment (DFFE) and Free State Department of Small Business Development, Tourism and Environmental Affairs (DESTEA)	
National Water Act (Act 36 of 1998) (NWA)	National Water Act (Act 36 of 1998) (NWA) aims to ensure that water resources are protected, used, developed, conserved, managed and controlled in a sustainable manner, for the benefit of everyone in South Africa. The preamble to the NWA recognises that the ultimate aim of water resource management is to achieve sustainable use of water for the benefit of all users and that the protection of the quality of water resources is necessary to ensure sustainability of the Nation's water resources in the interests of all water users. Section 19 includes various requirements to prevent and control water pollution. Potential risk to water quality during construction (spills) need to be identified and managed. The construction phase and operational activities of the feedlot expansion will require authorisation in terms of Section 21 of the National Water Act. The applicant will need to submit a water use licenses application to the Department of Water and Sanitation (DWS) for the development. Section 21(a) and section 21(b) of the NWA will likely be triggered by the development.	Department of Water and Sanitation	1998
National Environmental	The National Environmental	National Department	2008

Management: Waste Act (Act No. 59 of 2008) (NEM:WA) i	Management: Waste Act (Act No. 59 of 2008) (NEM:WA) is subsidiary and supporting legislation to NEMA. The NEM:WA is a framework legislation that provides the basis for the regulation of waste management in South Africa. Under the new Waste Management activities, animal manure is not regarded as waste and is defined as "a by-product which is bio-degradable in nature and could further be used for fertilization purpose" and therefore NEM:WA is not triggered. The proposed expansion of the feedlot does therefore not require a Waste Management License.	of Forestry, Fisheries and the Environment (DFFE) and the Local Municipality	
National Environmental Management: Biodiversity Act (10 of 2004). (NEM:BA)	The fauna and flora prevalent in the study area will be treated in compliance with the NEMBA as amended, including all legislation published in accordance with this act.	South African National Biodiversity Institution.	2004
The National Heritage Resources Act (Act No. 25 of 1999)	According to Section 38 (1), a Heritage Impact Assessment (HIA) is required to assess any potential impacts to paleontological heritage within the development footprint where exceed 5000 m^2.	South African Heritage Resource Agency and Free State Heritage Resource Authority	1999

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiationphase?	YES	~~NO~~
If YES, what estimated quantity will be produced per month?	3 m^3	

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

Solid waste generated on site will be a combination of manure and soil, resulting in biodegradable waste by product. The byproduct will be stored in a specified and appropriate storage facility before being removed or distributed to local farmers to be used as fertilizers.

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

Solid waste will be disposed at Steynsrus Landfill site or any other appropriate disposal site nearby. The ECO will oversee the process to ensure compliance during the construction phase while the farmer will be responsible during the operation phase.

Will the activity produce solid waste during its operational phase?	YES	~~NO~~
If YES, what estimated quantity will be produced per month?	3 m^3	

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

General waste will be disposed at Steynsrus Landfill Site or any other appropriate disposal site nearby.

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

Steynrus Landfill Site.

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

Solid waste generated on site will be a combination of manure and soil, resulting in biodegradable waste by product. The byproduct will be stored in a specified and appropriate storage facility before being removed or distributed to local farmers to be used as fertilizers.

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

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	~~YES~~	**NO**

If YES, inform the competent authority and request a change to an application for scoping and EIA. Anapplication for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	**NO**

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in termsof the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	~~NO~~

If YES, what estimated quantity will be produced per month?		**30 m^3**
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	**NO**

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

Will the activity produce effluent that will be treated and/or disposed of at another facility?	~~YES~~	**NO**

If YES, provide the particulars of the facility:

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

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

Not applicable

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	**YES**	~~NO~~
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO**

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

If NO, describe the emissions in terms of type and concentration:
Air emissions from the feedlot will include methane, carbon dioxide and biaerosols. The concentration will be negligible.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	~~YES~~	**NO**

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

e) Generation of noise

Will the activity generate noise?	**YES**	~~NO~~
If YES, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO**

Describe the noise in terms of type and level:
The construction phase will create limited and temporary noise pollution and disturb the receiving community but can be mitigated with the limitation construction hours to cause minimal disturbance to the farming community.

13. WATER USE

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

~~Municipal~~	~~Water board~~	**Groundwater**	~~River, stream, dam or lake~~	~~Other~~	~~The activity will not use water~~

If water is to be extracted from groundwater, river, stream, dam, lake or any othernatural feature, please indicate the volume that will be extracted per month:	**525 000**	**litres**
Does the activity require a water use authorisation (general authorisation or wateruse license) from the Department of Water Affairs?	~~**YES**~~	~~NO~~

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

14. ENERGY EFFICIENCY

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

The following are energy efficiency measures recommended for the expansion of the feedlot. They have also been considered based on the fact that the feedlot is already existing:

- Turn off unnecessary lights
- Installation of low wattage light bulbs
- Use natural light whenever possible

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

Due to the fact that there is existing power supply on the feedlot, the operation will continue to make use of the power sources already in use while taking the responsibility to implement energy efficiency measures for the facility as part of the expansion.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

3. Has a specialist been consulted to assist with the completion of this section? **YES** ~~NO~~

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained inAppendix D.

Property description/physical address:

Province	Free State
District Municipality	Fezile Dabi District
Local Municipality	Moqhaka Local Municipality
Ward Number(s)	2
Farm name and number	Rietfontien No 173
Portion number	2
SG Code	F03000000000017300002

Where a large number of properties are involved (e.g. linear activities), pleaseattach a full list to this application including the same information as indicated above.

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

Agriculture.

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

Is a change of land-use or a consent use application required? **YES** NO

A land-use application has will be submitted to the Moqhaka Local Municipality for approval.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeperthan 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeperthan 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeperthan 1:5

2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley		2.8 Dune	
2.3 Side slope of hill/mountain		2.6 Plain	**X**	2.9 Seafront	
2.10 At sea					

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scaleRegional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

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

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

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

A specialist was appointed to conduct a Terrestrial Biodiversity (Flora and Fauna) and Wetland Assessment. A copy of the specialist report is attached in Appendix D1.

5. SURFACE WATER

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

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

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

A perennial channeled valley bottom wetland was found to be present approximately 224 m east of the site.

6. LAND USE CHARACTER OF SURROUNDING AREA

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

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

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

N/A

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

N/A

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

N/A

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

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

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

The Critical Biodiversity Map is included as Appendix A. Also refer to Figure E in the section below.

7. CULTURAL/HISTORICAL FEATURES

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

N/A

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

The sheep feedlot is underlain by Permian aged sandstone and shale of the Adelaide Subgroup (Beaufort Group, Karoo Supergroup). According to the Palaeo Map of the South African Heritage Resources Information System (SAHRIS) the Paleontological Sensitivity of the Adelaide Subgroup (Beaufort Group, Karoo Supergroup) is Very High. Due to the Very High Sensitivity in the development a site visit was triggered by a qualified palaeontologist. (Appendix D3).

A site-specific field survey of the development footprint was conducted on foot on 16 July 2022. No visible evidence of fossiliferous outcrops was found in the development footprint and therefore an overall LOW palaeontological significance is allocated to the development footprint. It is therefore considered that the proposed development will not lead to detrimental impacts on the paleontological reserves of the area and construction of the development may be authorised in its whole extent.

The cultural landscape qualities of the region essentially consist of two components. The first is a rural area in which the human occupation is made up of a very limited pre-colonial Stone Age and Iron Age occupation. The second and much later component is a colonial farmer one, with a very limited urban component consisting of a number of smaller towns, most of which developed during the last 120 to 150 years. No sites, features or objects of cultural significance were identified. (Appendix D2).

Will any building or structure older than 60 years be affected in any way?	~~YES~~	**NO**
Is it necessary to apply for a permit in terms of the National Heritage ResourcesAct, 1999 (Act 25 of 1999)?	~~YES~~	**NO**

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

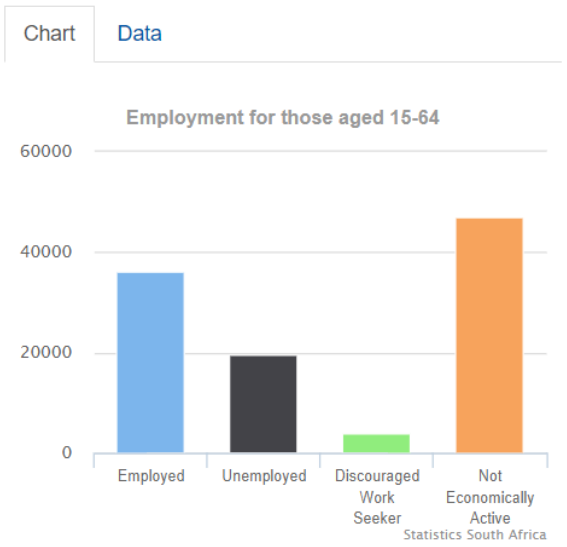
8. SOCIO-ECONOMIC CHARACTER

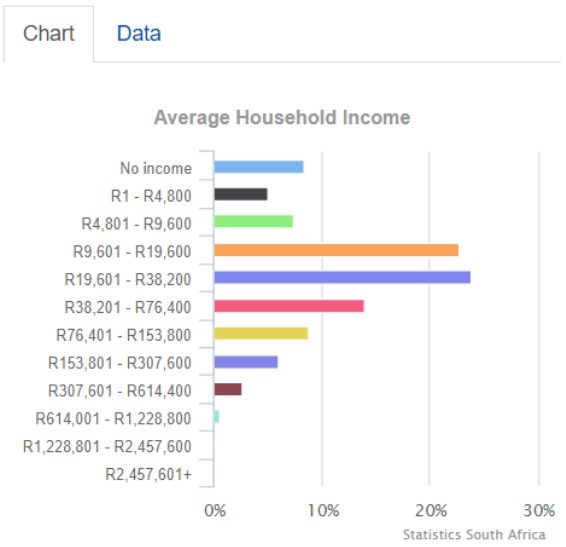
a) Local Municipality

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

Level of unemployment:

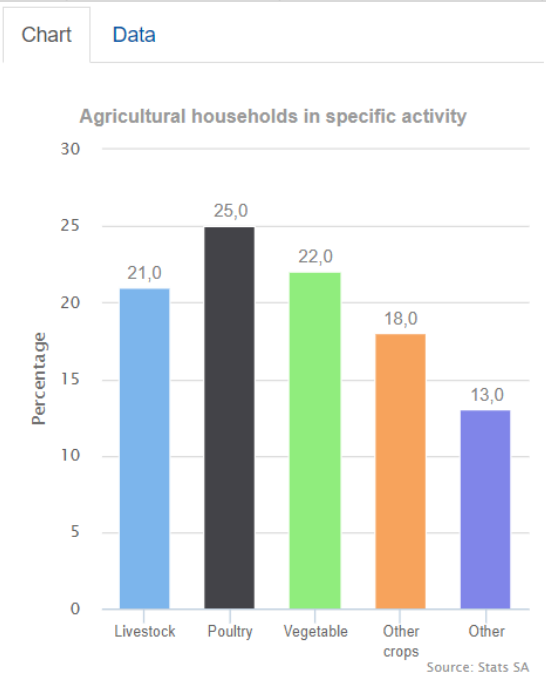
There are 55 594 people who are economically active (working or seeking for work), and 35,2% of them are unemployed. 47.2% of the area's 27 349 economically active youth (15-34 years) are unemployed.

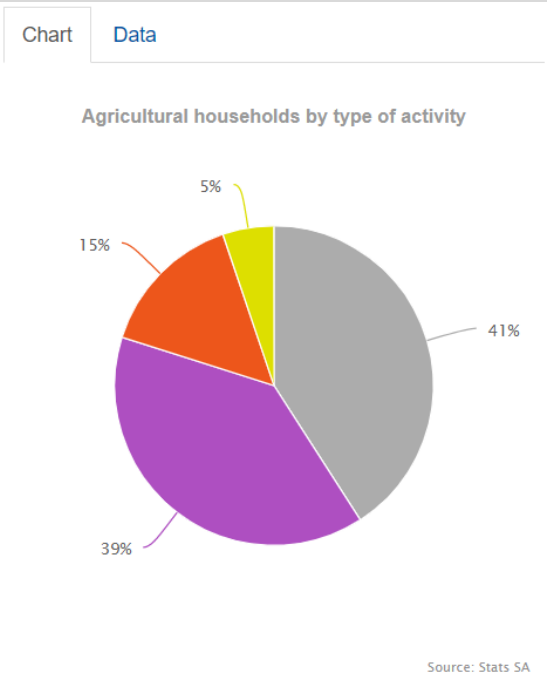




Economic profile of local municipality:

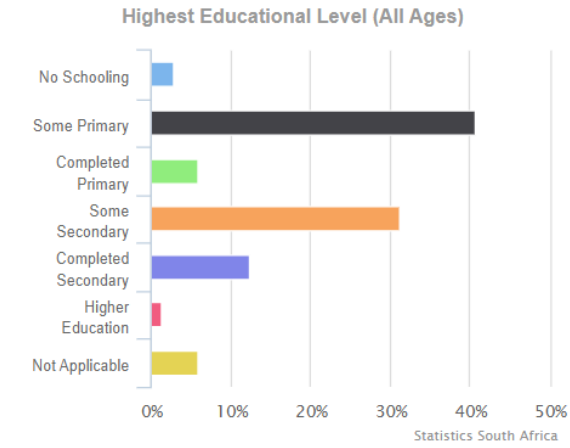
The Municipality's main economic activity is agriculture and animal production is sitting at the highest percentage of 41, which is higher than all the other agricultural activities.

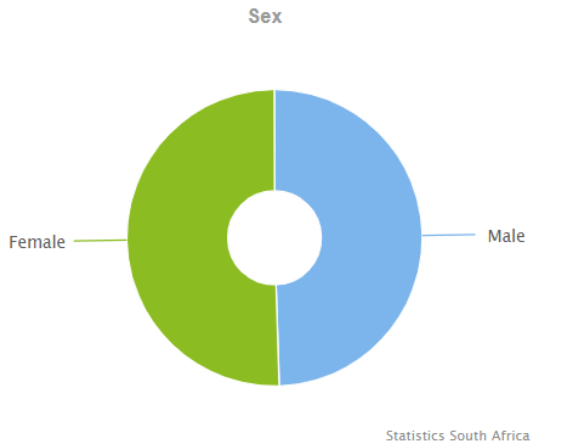




Level of education:

The majority of the population in the Moqhaka Local Municipality has some form of primary school education but only 27.8% has grade 12. The higher education rate is recorded to be 8.6% while 5.4% of the population does not have any form of education or schooling.





b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R10 000 000	
What is the expected yearly income that will be generated by or as a result of the activity?	R57 000 000 turnover	
Will the activity contribute to service infrastructure?	~~YES~~	**NO**
Is the activity a public amenity?	~~YES~~	**NO**
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	10	
What is the expected value of the employment opportunities during thedevelopment and construction phase?	R320 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	90%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	8	

What is the expected current value of the employment opportunities during the first 10 years?	R4 032 000.00
What percentage of this will accrue to previously disadvantaged individuals?	100%

9. BIODIVERSITY

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

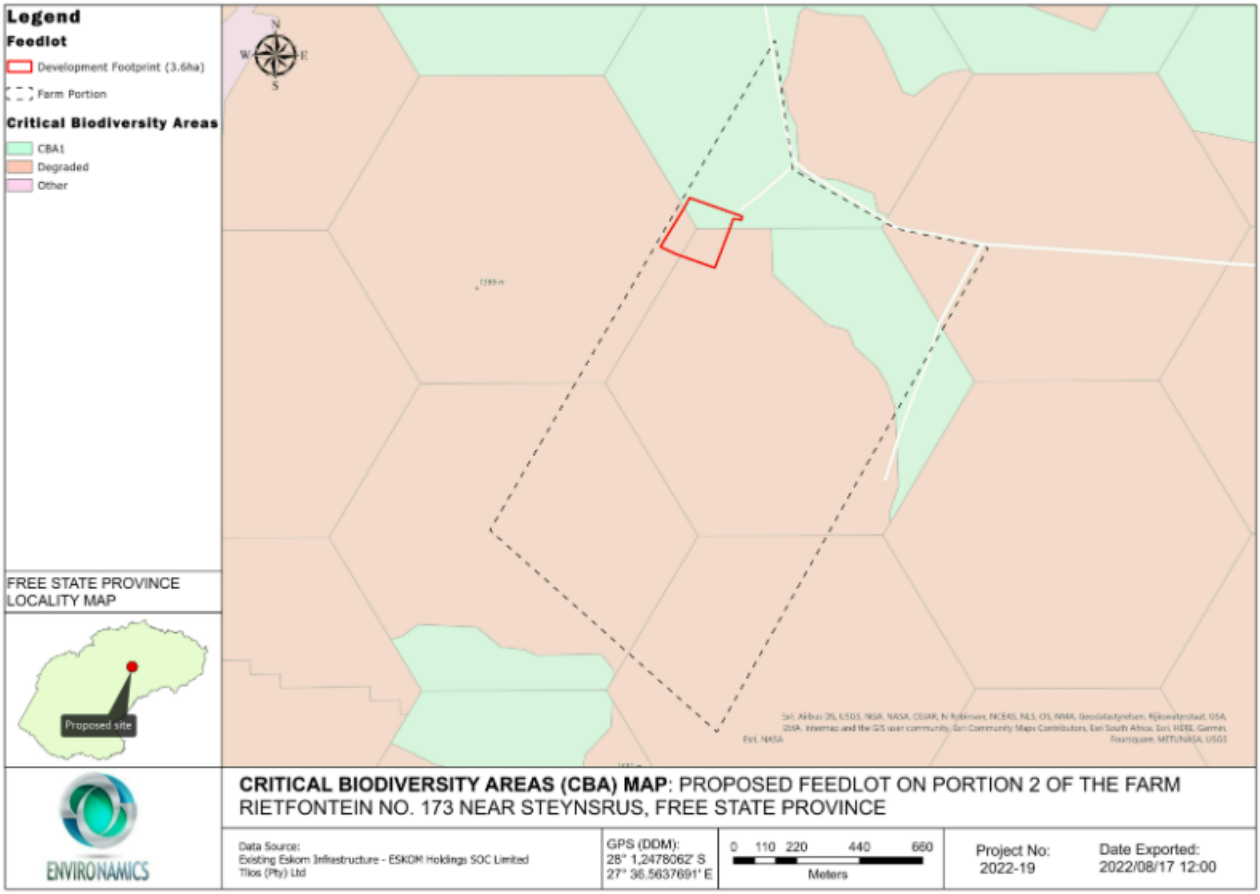


Figure F: Critical Biodiversity Area Map

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

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	~~Ecological Support Area (ESA)~~	~~Other Natural Area (ONA)~~	~~No Natural Area Remaining (NNR)~~	The study area is located within the endangered Vaal-Vet Sandy Grassland and a critical biodiversity area as identified in bioregional plans.

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	**0%**	No pristine natural area was observed in the study area.

Near Natural (includes areas with low to moderate level of alien invasive plants)	**70%**	The majority of the extent of the development is near natural and invaded by alien vegetation. Sighs of ploughing is visible.
Degraded (includes areas heavily invaded by alien plants)	**10%**	The remaining extent of the development is degraded and invaded by alien vegetation. Sighs of ploughing is visible.
Transformed (includes cultivation,	**20%**	The existing feedlot has resulted in the transformation of the study area. The remaining extent of the development is transformed with alien vegetation and the existing operation of the feedlot. Gravel roads also traverse the area.
dams, urban, plantation, roads, etc)		

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

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

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

The vegetation type of the study area falls within the endangered Vaal-Vet Sandy Grassland. This vegetation type occurs at altitudes ranging between 1260-1360 m within the Northwest and Free State Provinces. It occurs on plains dominated areas and consist of undulating terrain. The dominance of the vegetation by the climax grass *Themeda triandra* is characteristic. Areas that are heavily overgrazed are characterised by the prominence of the grasses *Elionurus muticus* and *Cymbopogon spp*. The vegetation type is found on aeolian and colluvial sand overlying sand and mudstone. The study area is made up of three vegetation units. These are old field grassland, degraded grassland and study area. All the vegetation units have a low conservation priority. In addition, a low percentage of the study area in all the vegetation units, comprises of alien species (Refer to Appendix D1 for the Ecological Assessment Report).

There was no wetland area found to be present on the proposed study area, however a perennial channelled valley bottom wetland was found to be present approximately 224 m east of the study area. The wetland consists of a narrow stream with various ponds along the channel. The vegetation along the edge is characterised by various grasses. The results from the Present Ecological Status (PES)

analysis for the stream area indicate it to be largely natural with a PES class B (87.2%). Little loss of habitat and biota has been experienced in the wetland area due to agricultural activities, however, it has remained intact in terms of species composition and ecosystem functioning.

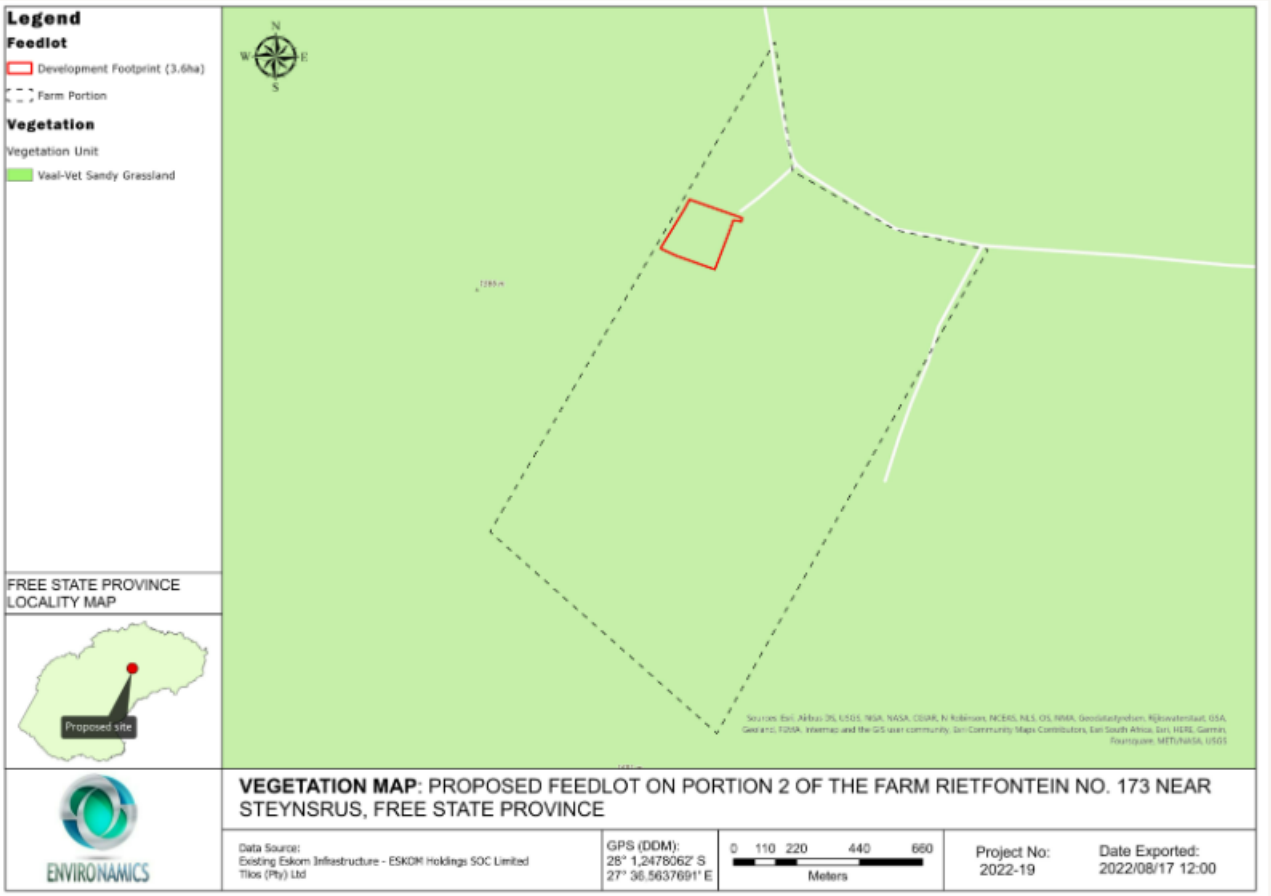


Figure G: Vegetation Map

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Nuusdrawwertjie	
Date published	7 July 2022	
Site notice position	**Latitude**	**Longitude**
	28° 0 1'10.78"S	27°36'41.15"E
Date placed	8 July 2022	

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

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 326.

The public participation process to which this basic assessment report and EMPr, is submitted in terms of regulation 19 of the EIA Regulations must give all potential or registered interested and affected parties, including the competent authority, a period of at least 30 days to submit comments on the basic assessment report and the EMPr.

I&APs were identified through several mechanisms. These include:

- Site Notice
- Newspaper Advertisement
- Distribution of notification and information to affected landowner(s), stakeholders and potential I&APs.

Identification and registration of I&APs will be continuous throughout the Basic Assessment Process and a database of all registered I&APs will be created and maintained.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 326

All key stakeholder's information is in included Appendix E5 of the BAR. The contact information is not available to the public based the requirements of POPI.

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

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or

- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
As the proposed development is undergoing an EA Application process in terms of the National Environmental Management Act, 107 of 1998 (NEMA) and the NEMA Environmental Impact Assessment (EIA) Regulations, the developer will undertake a Heritage Impact Assessment (HIA) and a Palaeontological Impact Assessment (PIA). The heritage specialist studies will be done as per section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). This must include any other applicable heritage components. The HIA must be conducted as part of the EA Application in terms of NEMA and the NEMA EIA Regulations.	A Heritage Impact Assessment and Palaeontological Impact Assessment have been conducted by the relevant specialist. The specialist studies were conducted according to section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). Copies of the specialist reports is attached in Appendix D of this Basic Assessment Report.
Portion 2 of the farm Rietfontein 173, Steynsrus falls within the jurisdiction area of the Moqhaka Local Municipality and as such is subject to the prevailing By-Laws and Land Use Scheme of the Municipality. In terms of the aforementioned pieces of legislation it would be expected of the developer to contact with the Spatial Planning Offices of the Moqhaka Local Municipality to guide them with the submission of a Land Use Application for the conducting of an intensive life-stock keeping facility (feedlot). The Municipality would also like to be registered as a affected stakeholder to enable it to obtain inputs and feedback on the development.	The requirements from the Municipality below are noted and have been incorporated in the Basic Assessment Report and submitted to the developer for their attention.

4. COMMENTS AND RESPONSE REPORT

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

Comments and Response Report containing all comments received to date is attached to the BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

All key stakeholder's information is in included Appendix E5 of the BAR. The contact information is not available to the public based the requirements of POPI.

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

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

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

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

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

SECTION D: IMPACT ASSESSMENT

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

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

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

The impact assessment methodology proposed for this development is based on the principle of activities, aspects and impacts. Activities are the physical activities that are carried out during the project during design, construction, operations and decommissioning of the development proposed for the site; Environmental aspects are elements of the activities that interact with the environment and include biophysical and socio-economic elements. Impacts are defined as changes in the biophysical or socio-economic environment as a result of the aspects. Each impact identified is given a significance rating.

For ease of reference the significance of the impacts is colour-coded as follow:

Low significance	Medium significance	High significance	Positive impact

Table 1: Impacts and the mitigation measures

SPECIALIST STUDY	IMPACT	PRE-MITIGATION RATING	POST MITIGATION RATING	SUMMARY OF MITIGATION MEASURES
Ecology Assessment (Appendix D1)	Loss of plant species	Negative High	Negative Low	• No development should be allowed in vegetation unit 2 (*Vachellia karroo* dolomite woodland), 8 (Drainage channel) and 9 (Riverine area). • These areas should be fenced off prior to construction and zoned as no-go areas. • The entire area to be developed must be clearly demarcated prior to initial site clearance and prevent construction personnel from leaving the demarcated area. • To minimise the effect on the vegetation, insects, small mammals, and environment it is recommended that the construction be done within the winter period as far as possible, when most plants are dormant and animals less active • Where vegetation of areas not to be developed needs to be "opened" to gain access it is recommended that the herbaceous species are cut short rather than removing them. • Vegetation clearance should be restricted to the approved development areas allowing remaining animals the opportunity to move away from the disturbance. The Environment Control Officer (ECO) should monitor these areas. • Storage of equipment, fuel and other materials should be limited to demarcated areas. • A Re-vegetation and Rehabilitation Manual should be prepared for the use of contractors, landscape architects and groundsmen to rehabilitate areas that became degraded due to construction activities. • Monitoring of all these activities must be done on at least a weekly basis by the ECO during the construction phase of the development to ensure that minimal impact is caused to the fauna and flora of the area. Any transgressing of rules must be reported to and by the ECO. • The ECO should keep a daily register of activities and reports.

	Loss of rare/medicinal species	Negative medium	Negative Low	• Where vegetation of areas not to be developed needs to be "opened" to gain access it is recommended that the herbaceous species are cut short rather than removing them. • Vegetation clearance should be restricted to the approved development areas allowing remaining animals the opportunity to move away from the disturbance. The Environment Control Officer (ECO) should control these areas. • The entire area to be developed must be clearly demarcated prior to initial site clearance and prevent construction personnel from leaving the demarcated area.
	Loss of animal species	Negative medium	Negative Low	• To minimise the effect on the vegetation, insects, small mammals, and environment it is recommended that the construction be done within the winter period as far as possible, when most plants are dormant and animals less active • No animals should be intentionally killed or destroyed and poaching and hunting should not be permitted on the site • Where equipment or holes pose a risk to animal safety, they must be adequately cordoned off to prevent animals falling in and getting trapped and/or injured. These areas should be monitored on a daily basis to ensure no animal is intentionally injured.
	Loss of biodiversity	Negative Medium	Negative Low	• No development should be allowed in vegetation unit 2 (*Vachellia karroo* dolomite woodland), 8 (Drainage channel) and 9 (Riverine area). • These areas should be fenced off prior to construction and zoned as no-go areas. • The entire area to be developed must be clearly demarcated prior to initial site clearance and prevent construction personnel from leaving the demarcated area. • To minimise the effect on the vegetation, insects, small mammals, and environment it is recommended that the construction be done within the winter period as far as possible, when most plants are dormant and animals less active • Where vegetation of areas not to be developed needs to be "opened" to gain access it is recommended that the herbaceous species are cut short rather than removing them.
	Increased soil erosion	Negative Low	Negative Low	• All stormwater and runoff generated by the development activities must be appropriately managed (see specialist report for more details). • Clearing activities and earth scraping should preferably be restricted to the dry season to prevent erosion.

				• A stormwater plan also needs to be developed so that erosion over the long-term does not happen. That should include achieving a good vegetation cover and rehabilitation where needed.
	Alien plant invasion	Negative Low	Negative Low	• Alien invasive plants present within vegetation units 1, 2, 8 and 9 must be removed and eradicated.
Wetland and Riverine Assessment (Appendix D1)	Soil compaction, erosion and sedimentation for the river and riparian area	Negative High	Negative Low	• Area should be fenced off prior to construction and declared as a No-Go area. • Sandbags should be placed along the edge of the 32m buffer zone of vegetation unit 8 (drainage line) if construction is to take place adjacent to this area. • Compaction of soils within the drainage line area (vegetation unit 8) should be avoided as far as possible (no development). Compaction will reduce water infiltration and will result in increased runoff and erosion. • No construction vehicles must be allowed to drive within the riverine area and associated buffer zone.
	Soil and water pollution for the river and riparian area	Negative High	Negative Low	• No hazardous materials should be stored within 300 m of the river area. • No cleaning of equipment should be done closer than 300m of the edge of the buffer zone.
	Spread and establishment of alien invasive species in the river and riparian area	Negative High	Negative Low	• No development should be allowed within the Riverine area or its 32m buffer zone. • Area should be fenced off prior to construction and declared as a No-Go area. • Any alien plant invasion noted should be reported to the ECO. • No dumping of removed plant material must be allowed within 300m of the riverine buffer zone.
Heritage Impact Assessment (Appendix D5)	Direct or physical impacts, implying alteration or destruction of heritage features	Negative Low	Negative Low	• Known sites must be clearly marked, so that they can be avoided during construction activities. • The contractors and workers must be notified that archaeological sites might be exposed during the construction activities. • Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, must cease immediately and the Environmental Control Officer (ECO) must be notified as soon as possible. • All discoveries must be reported immediately to a heritage practitioner so that an investigation and evaluation of the finds can be made. Acting upon advice from these specialists, the ECO must advise the necessary actions to be taken. • Under no circumstances must any artefacts be removed, destroyed or interfered with by anyone on the site.

				• Contractors and workers must be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the NHRA, Section 51(1).
Palaeontological Impact Assessment (Appendix D6)	Disturbance, damage or destruction of legally protected fossil heritage within the development footprint during the construction phase	Negative Medium	Negative Low	• The ECO for this project must be informed that the Adelaide Subgroup (Beaufort Group, Karoo Supergroup) has a Very High Palaeontological Sensitivity. • If Palaeontological Heritage is uncovered during surface clearing and excavations the **Chance find Protocol** should be implemented immediately. Fossil discoveries ought to be protected and the ECO/site manager must report to South African Heritage Resources Agency (SAHRA).
Odours created throughout the operational phase of the feedlot	Odours is generated through the accumulation of animal waste.	Negative Medium	Negative Low	• If animal waste is regularly removed from the site very little unpleasant smells will occur. The handling removal and disposal for animal waste products must be in terms of legal requirements and as per guidance through an approved operational Environmental Management Plan. Sprinkler systems with chemicals to reduce dust and control odour and fly population must be used. • Manure from intensive feedlots, where the sheep are confined in high densities or on hard stand for extended periods, should be scraped up and removed when necessary. • The frequency with which pens are cleaned will depend on factors such as the stocking density and the size of the animals. • Manure should be stored in a stockpile on an impervious surface where water from rain, sprinklers or surface drainage cannot access the manure (or where any run-off drains back to holding ponds). • Manure can be stored for an extended period until it is used on the farm or is removed off-site for use for local farmers or disposal in a manner approved by the incidence of disease-causing organisms.

				• The soil where solid feedlot waste is to be spread needs to be suitable for, and able to sustain, the agronomic regimes proposed. The disposal area also needs to be able to accommodate the water, nutrient, salt and organic loads involved. • Clean stormwater should be channelled away from the feedlot area, using bunds, culverts or drains, to ensure it does not become contaminated with manure or urine. • Any contaminated water from areas outside the feedlot, including stormwater run-off, should (wherever possible) be directed via drains to a settling pond lined with very low permeability clay or plastic. This water should then be suitable for discharge to an irrigation area. • Surface run-off from the feedlot should be collected in a drainage channel, with a sufficient cross-section. To prevent effluent being washed into a watercourse, all contaminated flows should be directed to stabilisation ponds for treatment before being spread over land by tanker or irrigation. • Where liquid and solid waste is combined and drain to a pond, effluent treatment is recommended using a multi pond stabilisation system, incorporating anaerobic and aerobic treatment.
Pathogens, flies and other vector insects		Negative Medium	Negative Low	• It is important to keep the feedlot as clean as possible and transfer the manure from the feedlot to the manure storage facility on a regular basis. An open feedlot, without a roof, will expose the pathogens to direct sunlight. • Manure will be regularly removed from the feedlot and put in the temporary manure storage facility. The feedlot will be kept as dry as possible. Regular veterinarian inspections are recommended for the proposed sheep feedlot expansion.

Cumulative Impacts

The cumulative environmental effects of the construction, operation and decommissioning project phases have been assessed. The information to date has shown that no significant adverse residual impacts are likely. However, cumulative impacts could arise as other similar projects are constructed in the area. All cumulative impacts will be of a medium or low significance.

The potential most significant cumulative impacts relate to:

- Cumulative effects during construction phase:
  - Habitat destruction and Fragmentation (- Medium)
  - Dust pollution (- Medium)
  - Impact on the characteristics of the watercourse i.e. flow regime, habitat, biota, water quality and geomorphology due to construction within floodline zone (road crossings etc.) (- Medium)
  - Soil erosion and sedimentation (- Medium)
  - Destroy or permanently seal-in fossils at or below the surface that are then no longer available for scientific study (- Medium)
  - Impacts of employment opportunities, business opportunities and skills development (+ Medium)

- Cumulative effects during the operational phase:
  - Habitat destruction and fragmentation (- Medium)
  - Dust pollution (- Medium)
  - Impact on the characteristics of the watercourse i.e. flow regime, habitat, biota, water quality and geomorphology due to construction within floodline zone (- Medium)
  - Spread and establishment of alien invasive species (- Medium)
- Cumulative effects during the decommissioning phase:
  - Habitat degradation due to dust (- Medium)
  - Spreading and establishment of alien invasive species in wetlands (- Medium)
  - Generation of waste (- Medium)

The cumulative impact for the proposed development is medium to low and no high, unacceptable impacts related to the project is expected. Considering the extent of the project and information presented in this report, it can be concluded that the cumulative impacts will not result in large scale changes and impacts on the environment. The proposed project will contribute to local economic growth by supporting industry development in line with provincial and regional goals and ensuring advanced skills are drawn to the Free State Province. No cumulative impacts with a high residual risk have been identified.

A complete impact assessment in terms of Regulation 19(3) of GN 326 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

The major impacts that is likely to occur during the construction and operational phase:

- **Natural Environment**
  The natural environment will be temporarily affected by the moving of construction vehicles and the construction of the sheep feedlot expansion.

  Valuable topsoil may also be lost during the construction process. The loss of topsoil can however be minimised through the storage of topsoil in designated stockpiles on site and the reuse thereof within the landscape component of the development.

  The generation of solid waste and dust will be evident during the construction and operational phases of the proposed sheep feedlot but the distance from neighbouring residences is enough not to have an excessive impact.

  The pollution of surface and ground water are likely to occur through the runoff of effluent from the feedlot, runoff from manure and the use of chemicals (medicine and pesticides). These impacts can be mitigated by channelling surface water runoff to manure or retention dams in lined/concrete channels. All the recommendation in the Stormwater Management Plan must be adhered to. Refer to Appendix D4 for the Stormwater Management Plan.

- **Social Environment**
  The Public Participation process was undertaken by means of a newspaper notice, site notices placed on prominent points on the application site, notification of surrounding tenants and landowners and the distributing of notices to stakeholders such as the Local Authorities, Councillors by means of e-mail.

  Crime can also impact the surrounding community from the temporary workers. Job opportunities will increase with the proposed development during the construction and operational activities.

- **Economic Environment**
  The proposed development will create a number of employment opportunities for individuals in the surrounding area.

  The expansion of the sheep feedlot will have a positive impact on the Agricultural community as the production of meat will be promoted and increased.

- **Noise**
  The construction phase will created limited and temporary noise pollution and disturb the receiving community but can be mitigated with the limitation construction hours to cause minimal disturbance to the community.

All actions and tasks allocated in the EMPr(s) should not be neglected to ensure that the impacts are properly mitigated and that the proposed expansion is undertaken in an envnironmentally appropriate and sustainable manner.

Alternative B

Alternative C

No-go alternative (compulsory)

The no-go alternative is the option of not undertaking the proposed activity or any of its alternatives. The no-go alternative also provides the baseline against which the impacts of other alternatives should be compared. In the event that the Environmental Authorisation for the expansion is not granted the No-Go alternative will be the result. This means the existing feedlot will continue to operate with its existing capacity in terms of the number of concentrated sheep on site. Therefore, an opportunity for the growth and development of the feedlot and the associated benefits will be lost.

If the proposed development would not continue and the no-go option is pursued it will prevent positive socio-economic activities in terms of job creation and investment opportunities from occurring. If no development takes place, an area zoned for agriculture will not be utilised for agricultural purposes, which is ineffective as the property has already been developed for the use of a sheep feedlot.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	**YES**	~~NO~~

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

N/A

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

It is the opinion of the independent EAP that the proposed development will have a net positive impact for the area and will subsequently ensure the optimal utilisation of resources and land for the expansion of an already existing operational sheep feedlot. All negative environmental impacts can be effectively mitigated through the proposed mitigation measures and no impacts of a high significance is expected to occur. Based on the contents of the report it is proposed that an environmental authorisation be issued, which states (amongst other general conditions) that the Tlios (Pty) Ltd sheep feedlot on Portion 2 of the Farm Rietfontein No. 173 near Steynsrus, Free State Province be approved subject to the following conditions:

- Implementation of the proposed mitigation measures set out in the EMPr.
- Implementation of the proposed mitigation measures set out in the specialist studies.
- The proposed expansion of the feedlot must comply with all relevant national environmental laws and regulations.
- All actions and tasks allocated in the EMPr should not be neglected and a copy of the EMPr should be made available on site at all times.
- Should archaeological/ palaeontological/heritage sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.

Is an EMPr attached? The EMPr must be attached as Appendix G.	**YES**	~~NO~~

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

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

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

NAME OF EAP

SIGNATURE OF EAP

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information