DRAFT BASIC ASSESSMENT REPORT – REF DC25/0008/21 – KZN/EIA/0001658/2021

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

KWAZULU – NATAL DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS (KZNEDTEA)

PROJECT TITLE

Proposed development of large stock unit (cattle) facilities and associated infrastructure on Portion 1 of the Farm Sterkfontein No.8501 within Dannhauser Local Municipality, Amajuba District, KwaZulu – Natal.

(1) (A) (i) DETAILS OF THE EAP WHO PREPARED THE REPORT:

Mondli Consulting Services has been appointed by the Nyezenhle Holdings (Pty) Ltd to undertake a Basic Assessment process for the proposed development of large stock unit (cattle) facilities and associated infrastructure on Portion 1 of the Farm Sterkfontein No. 8501 within Dannhauser Local Municipality, Amajuba District, KwaZulu - Natal.

Details of the EAP:

Business name of EAP:	**Mondli Consulting Services**		
Physical address:	**6 Joseph Avenue, New Era House, Suite 9, Durban North**		
Postal address:	**P O Box 22536, Glenashley**		
Postal code:	**4022**	**Cell:**	**0824187708**
Telephone:	**0826799841**	**Fax:**	**(031) 5725647**
E-mail:	**bm@mmcs.co.za** **mondlib@webmail.co.za** **mondlibee@gmail.com**		

(ii) **The expertise of the EAP (including curriculum vitae IS ATTACHED as Appendix G (1)(b).**

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
N. M Msibi	**She holds a Bachelor of Art degree in Environmental Planning and Development from University of Zululand.**	**She is in the process of registering with SACNASP.**	**She has been involved with EIAs for the past three years.**
BM Mthembu	**Diploma in Nature Conservation Masters Degree (Environmental Studies Dissertation, Geography) Bachelor of Laws (LLB)**	**EAPASA registered EAP: No. 2018/168 in accordance with the prescribed criteria of Regulation 15(1) of section 24 H Registration Authority**	**Has been involved in environmental and conservation field for over 20 yrs. Conducted EIAs for over 16 years including Strategic Env. Assessment.**
		Regulations **Society of South African Geographers (Membership No. 28/09), confirmed to comply with the requirements set by South African Council for Natural Scientific Professions.**	**Has been involved in the review and commenting on development projects impacting on the environment.**

(B) THE LOCATION OF THE ACTIVITY

(i) The project is located within Dannhauser Local Municipality. ***The surveyor-General 21-digit site reference number.***

N	O	H	T	0	0	0	0	0	0	0	0	8	7	9	9	0	0	0	0	0

(ii) The physical address and farm name

The proposed development of feedlot is located on Portion 1 of the Farm Sterkfontein No.8501 within Dannhauser Local Municipality. The site is located between Ladysmith and Newcastle (N11), opposite Birsmark off ramp, following a dirt gravel road for about 2 km on the left-hand side Newcastle bound on the dirt road leading to the Farm.

Property Number	Property Description	Size	Development type
1	The site is located on Portion 1 of the Farm Sterkfontein No.8501 within Dannhauser.	The total site area as per the Surveyor General (SG) Diagram is 46.5591 HAs in extent and will accommodate 4000 cattle. The proposed development footprint is 8.3HAs.	Farming project

(iii) Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties

Alternatives	Latitude (S)	Longitude (E)
Preferred site	**28º 00'28.03"**	**29º 57' 10.04"**

(C) A PLAN WHICH LOCATES THE PROPOSED ACTVITY OR ACTIVITES APPLIED FOR AS WELL AS ASSOCIATED STRUCTURES AND INFRASTRUCTURE AT AN APPROPRIATE SCALE.

See the attached map of the proposed site locating the proposed development of large stock unit (cattle), and locality map –

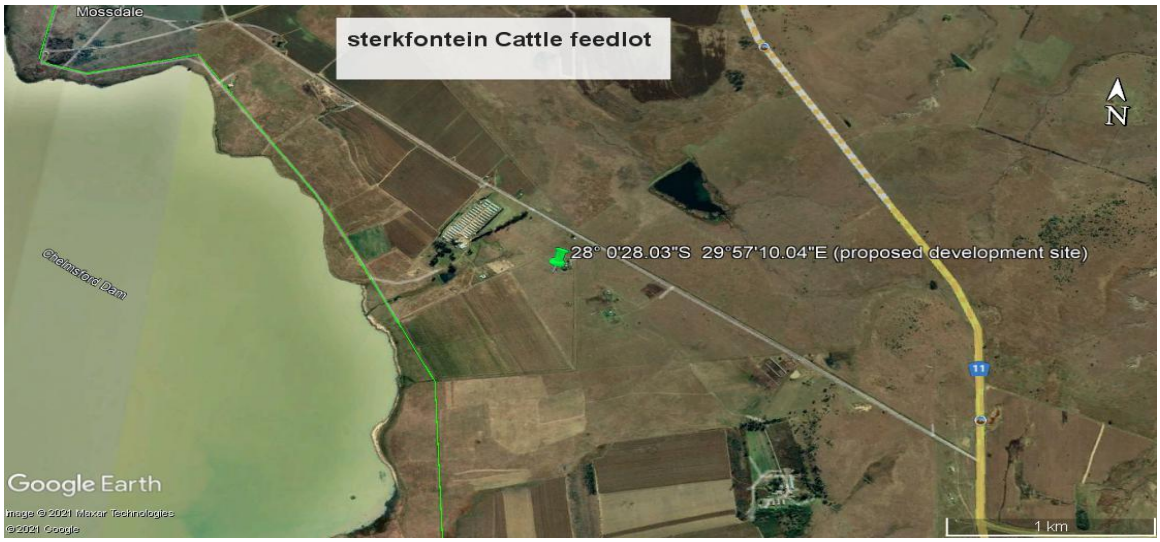

Figure 1: google earth map

(i) A linear activity, a description and co-ordinates of the corridor in which the proposed activity or activities is to be undertaken

The proposed project is not a linear activity.

In the case of linear activities: N/A

Alternatives	**Latitude (S)**	**Longitude (E)**
Preferred site	**None**	**None**
Alternative site 1	**None**	**None**
Starting point of the activity		
Middle point of the activity		
End point of the activity		
Alternative site 2	**None**	**None**
Starting point of the activity		
Middle point of the activity		
End point of the activity		

(ii) On land where the property has not been defined, the co-ordinates within which the activity is to be undertaken

The proposed activity is not on land where the property has not been defined.

(D) A DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTVITY, INCLUDING –

The project entails the development of large stock unit (Cattle) facilities and associated infrastructure. It is located in an area that is already zoned agriculture. The site is approximately 46, 5591 in extent and will accommodate 4000 cattle at any given time. 250 cattle will be sent to the abattoir on daily basis and replaced by the same number. The development footprint is currently calculated as 8.3HAs.

In terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended, promulgated in terms of the National Environmental Management Act, 1998 (NEMA), certain listed activities are specified for which either a Basic Assessment (GNR 327 and 324) or a full Scoping and Environmental Impact Assessment (GNR 325) is a requirement.

In this regard the following listed activity in Government Notice R 327 which is Listing Notice 1 is applicable, which require only a Basic Assessment process.

Table 1

Indicate the number and date of the relevant notice:	**Activity No(s) (in terms of the relevant notice):**	**Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice)[1]:**
GNR No.327 of 2014 (Listing Notices 1) as amended 7 April 2017	**Activity No. 4 -** the development and related operation of facilities or infrastructure for the concentration of animals in densities that exceed – i (i) 20 square metres per large stock unit and 500 units per Facility	The farm will accommodate 4000 cattle at any given time in feedlots, with 250 sent to the abattoir on daily basis, and replaced by the same number of 250.

GNR No. 327 of 2014 (Listing Notice 1) as amended 7 April 2017	Activity No. 27-The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for - (i) the undertaking of a linear activity; or Maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed project will be developed in an area that is 46.5591 hectares where approximately 8.3 hectares of indigenous vegetation will be cleared.

(i) A description of the activities to be undertaken including associated structures and infrastructure

Background and proposed development

The project entails the development of large stock unit (cattle) facilities and associated infrastructure. It is located in an area that is already zoned agriculture. The site is approximately 46, 5591 in size and will accommodate 4000 cattle at any given time. 250 cattle will be sent to the abattoir on daily basis and replaced by the same number. The development footprint is currently calculated as 8.3HAs.

Overview

The proposed development of feedlot will comprise of the following associated infrastructure:

- Feedlot pens
- Handling Facility with loading and offloading of cattle
- Feed storage area and processing unit
- Manure lagoons and stockpiles Area (size and amount)
- Carcass disposal Trench (method of disposing)
- Feeds Trough, water trough and shades
- Feedlot pads (earthworks)

The area to be cleared of indigenous vegetation is 8.3 hectares which is the development footprint of the project.

Project objectives

The project entails the development of stock unit facilities and associated infrastructure with the intention of providing meat in the country as part of food security; as well as ensuring the optimal use of land for farming, as the Farm is currently underutilised.

The main purpose of the project is the production of beef for the supply to the northern Province of KwaZulu – Natal.

Services on site

Sewerage

Regarding the sewage, the Farm is currently using septic tanks and it will continue using the same infrastructure. It is not foreseen that there will be too many people residing in the Farm, as most people will be employed directly from the local area.

Water

There is an existing borehole on site that will be utilised.

Roads

The access to the development site will be via the existing gravel road off the N11 (to be determined).

Stormwater

A Stormwater Management system will ensure that no surface water run-off, including the cattle manure impact on the environment and watercourses. Storm water management plan will be compiled.

Electricity

The Farm is using solar energy but there is an existing Eskom lines traversing the Farm. The intention is to submit an application to Eskom in addition to the solar energy available on site. The project will have to do the necessary extension to the new proposed site.

Refuse / Waste Management

General Refuse will be transported to the nearest landfill sites either at Newcastle or Dannhauser. It is not foreseen that there will be a lot of waste, other than cattle dung.

Waste management during construction phase

General waste – the general waste likely to be generated during the project construction include litter from workers on site like plastics and papers which will be disposed at the nearest Municipal waste disposal site.

Waste management during operational phase

General waste paper and cans, cardboards, plastics and food material and items utilized by workers will be disposed at the nearest municipal landfill site either Newcastle or Dannhauser. Carcases as well will be disposed at Municipal landfill site in an appropriate manner.

It is anticipated that the stored waste before collection will be below the threshold of 100m^3, too little to warrant a waste license in terms of GN 718: Category A; B & C.

Construction phase

Scope of civil works

The following is envisaged for the development of the site:

- Site clearance;

Nyezenhle Holdings (Pty) Ltd is proposing to develop a feedlot located on Portion 1 of the Farm Sterkfontein No.8501. It is anticipated that the project will take about four months to complete, if the environmental authorisation is granted. However, due to the complexity of the project there could be external variables and influences which cannot be controlled by the applicant. The applicant will request the maximum timeframe allowed for the validity of a decision.

The construction phase will follow the prescripts of Environmental Authorisation, Environmental Management Programme and recommendations of Specialists studies and Plans compiled for the project.

(E) A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED INCLUDING –

(i) *An identification of all legislation, polices, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report.*

Table 2

Legislation	Authority	Year
National Environmental Management Act (No. 107 of 1998).	Department of Forestry, Fisheries and the Environment (DFFE) and KZN Department of Economic Development, Tourism and Environmental Affairs (EDTEA).	1998
EIA Regulations, 2014 as amended.	DFFE and EDTEA	2014
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	DFFE and EDTEA	2006
Guideline on Need and Desirability, Department of Environmental Affairs	DFFE	2017
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	DFFE and EDTEA	2004
The National Water Act (No. 36 of 1998).	Department of Water and Sanitation (DWS)	1998
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	DEA and EDTEA	2008
National Environmental Management: Biodiversity Act (Act 10 of 2004)	DEA and EDTEA	2004
KwaZulu-Natal Heritage Act	KZN Amafa Research and Institute	2018
National Heritage Resources Act National Heritage Council Act	KZN Amafa Research and Institute	1999 1999
South African Constitution	RSA	1996

National Forests Act (Act No. 84 of 1998)	Department of Agriculture, Forestry and Fisheries (DAFF)	1998
National Development Plan	RSA Government Departments, Municipalities and Public Entities	2011
Integrated Development Plan (IDP) 2018/2019	Dannhauser Local Municipality	2020/2021
Integrated Development Plan (IDP) 2018/2019.	Amajuba District Municipality	2020/2021

(II) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments

Table 3

Legislation, polices, plans, guidelines, spatial tools, municipal development planning frameworks and other instruments	**Compliance and applicability**
National Environmental Management Act (No. 107 of 1998).	The environmental assessment is conducted as per the dictates of this Act.
EIA Regulations, 2014	The whole environmental assessment process has to comply with these Regulations.
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	These Guidelines are applicable in terms of the exploration of alternatives.
Guideline on Need and Desirability, Department of Environmental Affairs	In terms of these guidelines the need and desirability of the project has to cover certain specifics like ensuring optimal use of land.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	These may be applicable as the existing access road is a dirt gravel road. This is on case of dust and air pollution emanating from the project.
The National Water Act (No. 36 of 1998).	Although project site is located away from Chelmsford dam however the project needs to take precautionary measures to safeguard water resources.
KwaZulu-Natal Heritage Act / KwaZulu-Natal Council Act	The legislation is relevant in safeguarding heritage objects on site and its vicinity.

National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	All waste related issues are governed by this legislation e.g., appropriate disposal of solid waste during construction and operational phases.
Occupational Health and Safety Act (OHS)	Safety and health issues on site, especially during construction and operational phases.
National Forests Act (Act 84 of 1998), 1998	The Act is applicable as the site consists of indigenous and protected tree species that will be affected in terms of section (7) and (15) of the National Forests Act (Act 84 of 1998), 1998
National Environmental Management: Biodiversity Act, 2004	The Act is applicable in the context of the protection of tree species and the presence of indigenous biological resources.
National Development Plan	This relates to issues of job creation, rural employment, and skills development.
Integrated Development Plan (IDP) 2020/2021.	The project is in line with the ethos of the Dannhauser Local Municipality's IDP document.
Integrated Development Plan (IDP) 2020/2021.	The project is in line with the ethos of the District's IDP document.

(F) A MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT INCLUDING THE NEED AND DESIRABILITY OF THE ACTIVTY IN THE CONTEXT OF THE PREFERED LOCATION

The need and desirability of the project has to be informed by the principle of sustainability as provided for in the National Environmental Management Act, Guideline on Need and Desirability issued by the National Department of Environmental Affairs (2017), and ultimately the Constitution of South Africa. This serves as a way of ensuring that the proposed development is ecologically sustainable, and socially and economically justifiable.

The Guideline cited above among other things state that it is important to review the issues of need and desirability against the listed activities that has given rise to the application in its entirety. The need and desirability have to consider the broader community needs and interests as reflected in the municipal Integrated Development Plan (IDP), Spatial Development Framework (SDF) and Environmental Management Framework (EMF) for the area where the project is located.

One of the challenges faces the whole world is high level of unemployment rate that contributes to poverty. It is anticipated that the project will provide 40 permanent jobs and some temporal jobs which will be offered to local people during construction and operational phase of the projects. The project will prioritise local people in terms of

employment. 40 permanent jobs will make a huge contribution as part of the government recovery plan in the midst of a devastating Covid 19 pandemic.

The project will form part of food security and contribute in local economic development. The project will supply most of the Northern KwaZulu Natal areas with meat and ensure optimal use of land for farming, as the farm is currently underutilised.

During site visit, it was observed that there is an existing infrastructure. The portion of the property that will be developed has grass that has been mowed for the duration of the farming operations on site. The clearance of vegetation for the project is therefore not expected to result in disturbance of any species of conservation importance such as threatened and protected species.

Looking at the guideline on need and desirability, and focusing more on planning tools like the IDP, SDF and EMF, these have been useful in the assessment. The said guideline provides a list of 14 aspects, which must be considered.

Below are14 aspects that have been addressed for the proposed development.

1. Is the land use (*associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (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).*

Response: The project falls within Dannhauser Local Municipality, which falls under the Amajuba District Municipality. The project will help address the commercial status of local livestock farmers and the high unemployment rate within Dannhauser Local Municipality and Amajuba District Municipality. The Municipality's vision is to address economic sustainability and poverty alleviation in line with the ideals of the project.

2. *Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?*

Response: The proposed location has always been used for agricultural activities and is currently zoned as such. The project will help address the commercial status of local livestock farmers and the high unemployment rate within Northern region of KwaZulu - Natal.

3. *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).*

Response: At a national scale, the project will contribute to food security and contribute in the strengthening of the economy of the country. At a local scale, the project will play an important role in terms of employment opportunities and poverty alleviation within Dannhauser municipal area.

4. *Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?*

Response: The services which are currently in place within the proposed site will be adequate to cater for the project. Currently the farm is using solar energy, however application to Eskom for additional energy will be made since there are existing Eskom power lines traversing the Farm. There is an existing septic tank, borehole on the site that will be utilised. The development in its current format does not necessarily require any additional services.

5. *Is this development provided for 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)?*

Response: All other relevant infrastructure is currently available which will need to be maintained and upgraded as necessary. There is an existing gravel road that is currently used to access the site.

6. *Is this project part of a national programme to address an issue of national concern or importance?*

Response: Yes, the project will address the issue of food security and job creation, especially in a rural set up.

7. *Is the development the best practicable environmental option for this land/site?*

Response: Yes, it is the best practicable environmental option, the site is currently used for agricultural purpose. There will be no change in land use and the actual land zoning.

8. *Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*

Response: No: It is not expected that the approval of this application would compromise the integrity of any IDP or SDF. The proposed development is in line with the IDP and SDF.

9. *Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?*

Response: No. In fact, the strategic documents for both the local and District municipalities does indicate a strong commitment to the protection of the environment.

10. *Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context).*

Response: Yes, in the sense that the facility is proposed in an area that is already used for agricultural activities. There is an existing dirt road that will be used to access the site during both construction and operational phases of the project.

11. *How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural / natural environment)?*

Response: The proposed development is located over 500m away from Chelmsford dam. Although Chelmsford dam is over 500m of the site, the nature of the project and the location of site in relation to the watercourses, the

probability of the development impacting them is reduced to 0% under the circumstance that best environmental practice is exercised during all phases of the proposed development. No cultural or heritage features were observed on or near the site. Clearance of vegetation will be done on the development footprint of 8.3has, which is already disturbed and has been mowed for decades.

12. *How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?*

Response: The proposed development is located away from residential area and in an area that has always been utilised for agricultural activities. It is not foreseen that there will be any noise or visual impact that will affect the well-being and health of the local people. However, the waste management plan will be developed to deal with issues of cattle manure and possible odour.

13. *Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?*

Response: No.

14. *Will the proposed land use result in unacceptable cumulative impacts?*

Response: On condition that the developer implements all mitigation measures laid out for both the construction and operational phases and adheres to Environmental and Agricultural Regulations and Guidelines, the proposed development is not expected to have unacceptable cumulative impacts. Cumulative impacts of the project over time are rather expected to be positive with specific reference to stimulation of economic development on a local scale.

The proposed development will be in line with the following project phases:

I. Preconstruction phase and planning

This phase includes the appointment of professionals across different fields of expertise for all required assessments, permits and designs that need to be undertaken as part of the planning to ensure successful implementation of the project and compliance to all relevant legislations, regulations and guidelines.

ii. Construction phase

This phase is highly technical in terms of engineers, artisans etc. it also makes provision for manual work and opportunities for the locals and small sub-contractors.

iii. Operational phase

This phase will include appointment of both locals and external workers for the different roles required for successful operation of the business. There will also be transportation of cattle to the abattoir. The Developer has expressed the desire in the medium to long term to have to employ local people, but this will be strongly influenced by availability of individuals within the community that possess the required skills and/or qualifications.

(G) A MOTIVATION FOR THE PREFERRED SITE, ACTIVITY AND TECHNOLOGY ALTENATIVE

As per GN. R 326, Appendix 1(2)(b), alternatives for the proposed development are to be identified and considered, and this is in line with the definition under Chapter 1 of the EIA Regulations, interpreting alternatives as “in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the –

a. Property on which or location where the activity is proposed to be undertaken;
b. Type of activity to be undertaken;
c. Design or layout of the activity
d. Technology to be in the activity;
e. Operational aspects of the activity

This includes the option of not implementing the activity. This approach compels the developers and assessors to consider other potential land uses and possible future land uses for the site under assessment. In essence this section focuses on the motivation for the preferred site, looking at the topics covered below:

Property on which the activity is undertaken

The property where the proposed development is located on is within Ward 1 of Daunhauser Local Municipality. The proposed development is located on Portion 1 of the Farm Sterkfontein No.8501, which is privately owned, and is currently used for the farming operations.

The proposed development is located over 500 m away from Chelmsford dam and the area is already zoned for agriculture with no intention of rezoning it for any other land use. There is an existing infrastructure that will be used such as dwelling houses, existing gravel access road boreholes, solar energy, Eskom powerlines, water reservoirs and animal leading structure.

Type of activity undertaken

With high unemployment rate in South Africa, business development is important to create employment opportunities and stimulate local economic development. It is important for the private sector to initiate economic development projects and initiatives to relieve the pressure of having people solely dependent on government efforts.

Moreover, this project is undertaken by the youth who are trying to create jobs for themselves and the local people. Youth development viewed against the high youth unemployment is on top of the government's agenda at the present moment.

The owners of the proposed development, Developer's side are young black males who are already in business. They have strictly chosen this type of activity as it is what they are passionate about. Also, with the research that they have done, they identified this as the type of activity that they want to carry out which will help them generate income for their families whilst also providing for local economic development with some locals to be included in the different project phases.

The agricultural sector has been identified at local and national scale as an important sector to support and improve food security. Cattle feedlot falls within the agricultural sector which is also one of the reasons that the proposed development was chosen by the Developer.

Technology to be used by the activity

There is no specific technology that will be used for the project, except the designs that will be in line with guideline and standards for cattle farming.

No - go option

The no-go option will serve no purpose in this instance because the site has proved to be socially and environmentally acceptable, and it is already used for agricultural activities and zoned as such.

Alternative site

There is no alternative site for this proposed development as indicated above.

(H) A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERED ALTERNATIVE WITHIN THE SITE, INCLUDING:

(i) Details of all the alternatives considered

Property on which the activity is undertaken

The property on which the proposed development will take place is the only property available to the applicant as it enhances the farming activities that are already taking place on the Farm. The exact location within the site has been chosen based on the following factors:

- There are no environmentally sensitive features within the site, including watercourses.
- Proximity to a usable road: the property is close to a gravel road from which access to the site can be gained. This gravel road connects from N11 tarred roads to the Farm.
- The site is already used for agricultural activities, hence the are existing structures such as dwelling houses, existing gravel access road boreholes, solar energy, Eskom powerlines, water reservoirs and animal leading structure.
- There is electricity through solar energy on site that is used for the farming operations.
- There is an existing borehole on the locality of the property which will be used as source of portable water.
- The slope/gradient of the site is favorable for the proposed development.
- The property is located away from surrounding communities, but it is accessible for travelling for community members employed during construction and operational phases.

Type of activity undertaken

The Government has been encouraging South Africans and especially the youth to be more involved in Commercial Agriculture.

According to the National Development Plan (NDP), South Africa would like to reduce the unemployment rate to 6% by 2030. Currently the unemployment rate is above 30%. Agriculture has the potential to create close to 1 million new jobs by 2030, which would be a significant contribution to the overall employment target. The youth make up the majority of the unemployed.-sagrainmag.co.za, July 2019.

The representatives of Nyezenhle Holdings (Pty) Ltd that will be leading this project are young males who have grown the passion to take part in the type of activity proposed. Although the proposed development may mainly benefit the developer, it is also expected to have significant benefits for the country and the local community especially through food security and permanent employment.

Design and layout of the activity

The basic proposed feedlots designs are reflected below:

Technology to be used by the activity

There are no technology alternatives considered as those to be used are not known to have any excessive detrimental impacts on the environment.

As highlighted above, there is no specific technology that will be used for the project.

No – go option

The no-go option is defined as an option of not undertaking the proposed activity and its inherent alternatives. As per above, the no-go option is not seen as worth exploring in this instance and context.

Alternative location

There is no alternative location, however two Farms were identified prior to the applicant buying this one, and these were considered unsuitable due to the proximity to the watercourses.

(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs

The project has followed the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

- Pre – application meeting was held with the Department of Economic Development, Tourism and Environmental Affairs on 7 July 2021 as per the attached minutes – **Appendix B (1)**.
- The ward councillor was also phoned to discuss the project, and the public meeting was arranged for the 3rd of December 2021 – see attached **Appendix B (2).**
- The project was advertised in Newcastle Advertiser (English) and Eyethu Amajuba (IsiZulu) newspapers both dated 26 November 2021 – attached as **Appendix B (3) (i) and (ii).**
- The Site Notices were erected on site – see **Appendix B (4)**
- A draft Basic Assessment report was circulated to all stakeholders, Interested and Affected Parties (I&APs) and state Departments for commenting as part of the Public Participation Process. All comments received will be attached to and incorporated in the Final BAR and EMPr.

(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or reasons for not including them

The draft BAR has been circulated to I&APs, stakeholders, and state departments as per the table below giving the opportunity to comment on the proposed development. The comments and responses to such comments will be recorded in the comments and response report which will be attached to the final BAR as **Table 19**

Table 4: Table showing identified stakeholders, I&APs and State Departments consulted and given the opportunity to comment on the proposed development. (see also the Register of interested and affected parties attached as **Table 20**

Table 4

Name of Organisation/Department	***Contact Person***	***Contact Details***

Department of Economic Development, Tourism & Environmental Affairs	Mr Poovey Moodley	48 Harding Street Newcastle 2940
Ezemvelo KZN Wildlife	IEM Co-ordinator	P.O.Box 13053 Cascades 3202
KwaZulu – Natal Amafa and Research Institute	Ms. Bernadet Pawandiwa	195 Langalibalele Street, Pietermaritzburg, 3201
Department of Water and Sanitation	Ms. Lindiwe Dladla	P.O.Box 1018 Durban. 4000
South African National Road Agency Limited (SANRAL)	Regional Manager / Thobile Duma	58 Van Eck Place Mkondeni Pietermaritzburg, 3200
KZN Department of Transport	Ms Judy Reddy	224 Prince Alfred Str Pietermaritzburg 3200
Dannhauser Local Municipality	HOD: Technical Services, Mboneni	Dannhauser Local Municipality 8 Church Street, Dannhauser
Amajuba District Municipality	Nothile Mthimkhulu : Planning Dept	Private Bag X6615 Newcastle, 2940
Department of Agriculture and Rural Development (DARD)	P. Mans	Private Bag X9059 Pietermaritzburg 3200
ESKOM	Samantha Naicker	ESKOM KZN Operating Unit, Land Development Dept, 25 Valley View Road, New Germany
Land claims commission	Lynn Boucher	Private Bag X9120, Pietermaritburg, 3200

(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects

Geographical and physical attributes

Land Use Character

The proposed project site is located within the Farm identified as Portion1 of the Farm Sterkfontein No.8501 within Dannhauser Local Municipality. The site is within an area zoned agriculture, surrounded by several cattle Farms. The proposed development site has been used for agriculture for decades. The Farm comprise of grass that has been mowed for several years, and comprise infrastructure that has been used for the farming operations on site.

The distance from Chelmsford dam is over 500m.

Climate

The area that the site is located within is characterized by hot summers and mild winters with temperatures ranging from 9˚C to 19 ˚C. Rain in this area is mainly received in summer with some rain also received in winter with annual precipitation levels ranging between 800mm – 1125mm. During any summer season, some of the most common hazards that get identified include severe thunderstorms (that are often accompanied by heavy rainfall, lightning, strong winds and hail).

Description of ecological baseline

Vegetation and Fauna

The vegetation assessment was conducted by our in-house conservationist for the following reasons:

- The site is already within the Farm that is in operation.
- The site is already disturbed, and is mowed by the farm management all the time as part of farming operations veld management.
- There are no tree species on site, other than grass species as outlined below.

The site was visited on the 27th of August 2021, and therefore the information gathered on site is reasonable recent. The scope of work entailed the assessment of impacts on vegetation that will be cleared, especially the indigenous vegetation. This will include ecological assessment looking at the potential impact the project will have on natural vegetation. The identification of invader plants on site, to integrate the eradication programme. Identifying the grass species as may be applicable, given the fact that no plant species that are likely to be removed were identified on the development footprint. This will further highlight mitigation measures to be implemented during project rollout and inclusion on the EMPr.

The adopted methodology for the assessment entailed desktop analysis of the site in question, through google image analysis. It included literature review to understand the vegetation and ecosystem of the site, in particular Guide to Grasses of Southern Africa by Frits van Oudtshroon (1999) and Field guide to trees of Southern Africa by Braam van Wyk & Piet van Wyk (1997) were used as part of species identification on site.

The assessment entailed an initial ‘walk through’ assessment of the proposed development footprint. This mas meant to identify and mark the extent of habitat types and vegetation communities present within the proposed development area. A comprehensive field assessment of the identified vegetation communities was then conducted to record the dominant species within each community, and determine the presence of protected and /or endangered species present within the proposed development area. During the initial ‘walk through’ of the site and throughout the ecological assessment of the proposed development area, visual identification of faunal species was conducted. All visually identified faunal and floral species were recorded and subsequently cross-referenced with the list of protected species within the KwaZulu-Natal Province.

In terms of the assessment of specific sensitivity of the site relating to the proposed activity and its associated infrastructure, it was identified that the project roll out will entail the removal of native vegetation, removal of basal cover can render the soil susceptible to erosion. Species currently inhabiting the area will lose their habitat however animal species can migrate into the area not to be developed. This context of the whole Farm being mowed on continuous basis as part of the Farm management operations.

It was confirmed by the applicant that out of the 46.5591 HAs, only 8.3HAs will be utilised for the feedlots. The proposed development footprint is 8.3HAs. The undeveloped area will serve as the habitat for species on site, and additional grass planting may be done as advised by the Environmental Control Officer (ECO) during construction phases. Should any area be left bare during construction, it must be planted with suitable ground cover to prevent possible soil erosion. It is critical to keep and maintain the grass cover after all earthworks operations. Appropriate indigenous landscaping has to be done on project completion as advised by the ECO.

At a broader “Regional level”, the site falls under Bioresource Group known as Moist Tall Grassveld (BRG 12). BRG 12 lies in an altitude range of 900 to 1 400 m and has a mean annual precipitation of 712 to 805 mm. It is similar to what Phillips (1973) defined as BCG 8, or Dry Tall Grassveld, and this BRG encompasses both the Northern and Southern Tall Grassveld of Acocks (1953). The term "moist" may be regarded as a misnomer, because in other BRGs this indicates an area with > 800 mm mean annual precipitation. It is, however, regarded as a moister phase of the Dry Tall Grassveld (BRG 13). Plinthic soil forms are dominant and duplex soil forms may be encountered occasionally.

Plant indicator species: *Aristida congesta, Bothriochloa insculpta, Hyparrhenia hirta, Sporobolus pyramidalis, Acacia dealbata, A. karroo, A. nilotica, A. sieberiana, Lantana camara, Diospyros lycioides.*

The Tall Grassveld zone covers most of the interior basin of the Thukela River. Erosion is a serious problem in this area and the veld varies in condition from good to poor quality, the latter being found mainly on erodible, duplex soil forms. The invasion of thorn scrub *(Acacia* spp.) poses a threat to the stock farmers.

Grass species on site

The grass family is one of the most important families in the world, if not the most important. It forms the very basis of many ecosystems and all animals are therefore either directly or indirectly dependent on them for survival. Grasses are used as a food source; they provide shelter for a huge range of organisms, and they protect the soil from being degraded which leads to erosion.

Table 5. Below is the grass species recorded on the site.

Scientific Name	**Common Name**
Aristida congesta	Tassel three-awn
Eragrostis curvula	Weeping Love Grass
Eragrostis racemosa	Narrow heart love grass
Eragrostis superb	Saw-Tooth Love Grass
Hyparrhenia hirta	Common thatching grass
Sporobolus africanus	Rat’s – Tail Dropseed
Sporobolus pyramidalis	Giant rat’s tail grass

Tristachya leucothrix	Hairy trident grass
Themeda triandra	Red grass

Table 6. Below is the list of Trees recorded on site

Scientific Name	Common Name
Acacia mellifera	**Black thorn**
Acacia sieberiana	**Paper bark thorn**

Alien invasive species

The take-over by invader plants can affect vegetation making soil susceptible to erosion.

Table 7. Alien invasive plants identified on site

Scientific Name	Common Name
BidensPilosa	Blackjack
Cirsium vulgare	Spear thistle
Verbascum Thapsus	Great mullein
Tradescantia reverchonii	Reverchon's spiderwort
Solanum rostratum	Buffalo bur
Amorpha fruticosa	False indigo bush
Scolymus maculates	Spotted golden thistle
Lavandula multifida	Fernleaf lavender
Datura stramonium	Jimsonweed

Table 8. Wildflowers identified on site

Scientific Name	Common Name
Arctotheca calendula	African marigold

Looking at the impact of the proposed development on vegetation, the development will not have tremendous impact on vegetation. The EMPr will guide and monitor earthworks and all disturbance on site.

Groundwater and Wetlands / Hydrology

There are no wetlands not watercourses identified within the site, however Chelmsford dam is located over 500m away from the proposed development site.

Economic attributes

The project will contribute to the economy of the country. At a local scale, the project will play an important role in terms of poverty alleviation and through provision of employment opportunities within Dannhauser municipal area and its surroundings. The proposed project will also contribute to food security, in particular for the Province of KwaZulu – Natal.

Social attributes

Sterkfontein farm is located within Dannhauser Local Municipality, Dannhauser area is characterised by high unemployment rates. Development of feedlot will improve employment rates since the proposed project is going to create 40 permanent employments.

Heritage, historical features and cultural aspects

Culturally significant elements

There is existing dwelling houses, infrastructure such as boreholes and water reservoirs on the north side of proposed site. There are no heritage objects that were identified on site, including the graves.

Buildings and structures to be affected

There are no buildings / structures on the proposed development footprint that will be affected, however some structures are located on the site but out of the development footprint.

Although there are no heritage features visible on the site, steps should be taken to safeguard such, should these be uncovered on site. Like all development projects it is critical to take into consideration the South African National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act of 2018 which requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency KZN Amafa and Research Institute.

Site photograph

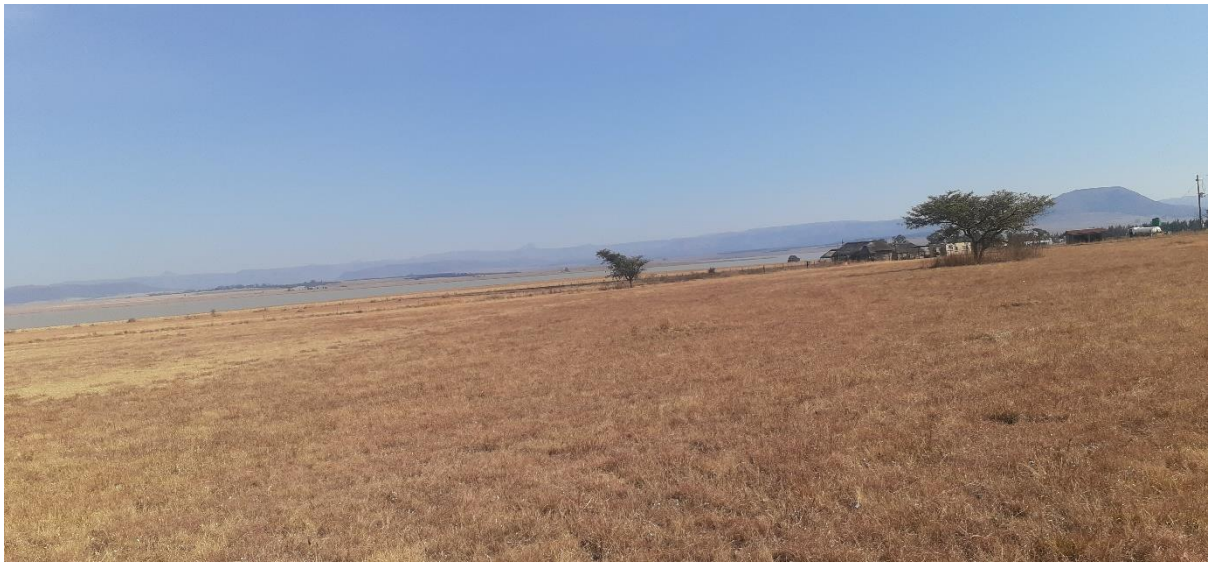

Figure 1 - site photograph

(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts –

(aa) can be reversed

The impacts associated with the proposed development cannot be reserved unless the project is decommissioned which is not expected to happen. All the indigenous species that are likely to be affected by the proposed project have been identified, and will be replanted on project completion. Whenever possible the cutting of trees will be avoided. In the total scheme of things, the identified impacts seem reversible with adherence to mitigation measures. The measures will include the re-planting as may be advised by the ECO.

See Table 13 below for details.

(bb) may cause irreplaceable loss of resources; and

There is no irreplaceable loss of resources expected to occur as a result of the proposed development. Mitigation measures will provide for the avoidance, reduction and remediation of impacts to ensure that the overall integrity of the surrounding environment is preserved to allow for continued ecosystem functionality.

See Table 9 below for details.

(cc)can be avoided, managed or mitigated

Some impacts can be avoided such as avoiding removal of identified indigenous vegetation with most impacts to be managed and mitigated with implementation of measures to ensure that such impacts are minimal and or compensated for.

Impacts identified for the preferred site

- Soil erosion during earthworks, construction and operational phases.
- Habitat loss - Rehabilitation of the site is important once the work is completed where appropriate.
- Vegetation removal.
- Air pollution in the form of dust during construction.
- Soil contamination during construction.
- Stockpiling.
- Littering and solid waste.
- Concrete mixing.
- Noise pollution during both construction and operational phases.
- Traffic Management.
- Health and Safety.
- Visual impact.

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment. Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

Table 9: interpretation of the overall significance of impacts is presented below

Scoring value	Significance
>35	Very High – **The impact is total / consuming / eliminating** – In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or some combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt. Mitigation may not be possible / practical. Consider a potentially fatal flow in the project.
25 – 35	High – **The impact is profound** – In the case of adverse impacts, there are few opportunities for mitigation that could offset the impact, or mitigation has a limited effect on the impact. Social, cultural and economic activities of communities are disrupted to such an extent that their operation is severely impeded. Mitigation may not be possible / practical. Consider a potential fatal flaw in the project.
20 - 25	Medium – **The impact is considerate / substantial** – The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire project option or entire project proposal unacceptable. Mitigation is therefore essential.

7 - 20	**Moderate - The impact is material / important to investigate** – The impact is of importance and is therefore considered to have a substantial impact. Mitigation is required to reduce the negative impacts and such impacts need to be evaluated carefully.
4 - 7	Low – **The impact is marginal / slight / minor** – The impact is of little importance, but may require limited mitigation; or it may be rendered acceptable in the light of proposed mitigation.
0 - 4	Very Low – **The impact is unimportant / inconsequential / indiscernible** – no mitigation required, or it may be rendered acceptable in light or proposed mitigation.

The significant rating of each identified impact was then reviewed by the EAP through professional judgement and checklists. The checklist entails comprehensive list of possible environmental effects and impacts. In assessing each impact and its significance the evaluation was based on the following elements:

Nature of the impact

Herewith impacts are classified as either direct, indirect or cumulative.

- **Direct impacts:** impacts usually caused from activities carried out on site that can only be monitored to be carried out within certain confines but cannot at all be avoided, i.e. clearing of vegetation to mark a road reserve in an area populated with vegetation.
- **Indirect impacts:** secondary impacts resulting from direct impacts, i.e. erosion resulting from destabilised soils due to clearing of vegetation.
- **Cumulative impacts:** impacts which could result during the life cycle of the project as a result of one or two impacts that are usually unnoticed as single elements of such.

The environmental impacts of a project are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the project not been undertaken or if the no-go option was adopted.

Extent - The extent is associated with the geographic extent of the impact including physical and spatial scale of the impact

Table 10 - Extent

RATING	EXTENT SCALE
7	**International** - The impacted area extends beyond national boundaries.
6	**National** – The impacted area extends beyond provincial boundaries.
5	**Ecosystem** – The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.
4	**Regional** – The impact could affect the site including the neighbouring areas, transport routes and surrounding towns e.g. at the KZN Provincial level.

3	**Landscape** – The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning.
2	**Local** – The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas. Normally within a radius of 2 km from the site.
1	**Site Related** – This is an impact within the boundaries of the construction site or the development footprint. The loss is considered inconsequential in terms of the spatial context of the relevant environmental or social aspect.

Magnitude - This provides a qualitative assessment of the severity of a predicted impact. Below are some of the standard terms used in assessment relating to this indicator.

Table 11 - Magnitude

RATING	MAGNITUDE SCALE
7	**Total / eliminating** – Function or process of the affected environment is altered to the extent that it is permanently changed.
6	**Profound / considerate / substantial** – Function or process of the affected environment is altered to the extent where it is permanently modified to an extent of temporal cease.
5	**Material / important** – The affected environment is altered, but function and process continue, albeit in a modified way.
4	**Discernible / noticeable** – Function or process of the affected environment is altered to the extent where it is temporarily altered, be it in a positive or negative manner.
3	**Marginal / slight / minor** – The affected environment is altered, but natural function and process continue.
2	**Unimportant / inconsequential / indiscernible** – The impact temporarily alters the affected environment in such a way that the natural processes or functions are negligibly affected.
1	This is where there will be no impact on the environment.

Duration - This describes the timeline of the predicted impact. Below are some of the standard terms used in assessment relating to duration.

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Table 12 - Duration

Rating	DURATION SCALE
7	**Long term** – Permanent or more than 15 years post decommissioning. The impact remains beyond decommissioning and cannot be negated.

3	**Medium term** – Lifespan of the project. Reversible between 5 to 15 years post decommissioning.
1	**Short term** – The impacts will be easily reversible with the adoption of mitigation measures. This will happen during the project lifespan. The impact will either be remedied with mitigation or will be mitigated through natural processes within the project phase i.e. within 0 – 5 years.

Irreplaceability / Loss of resources - Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate or reconstruct a lost resource in some case. The loss of a resource may become more serious later, and the assessment must take this into account. Below are some of the standard terms used in assessment relating to duration.

Table 13 - Irreplaceability / Loss of resources

RATING	IRREPLACEABILITY / RESOURCE LOSS SCALE
6	**Permanent** – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.
5	**Long term** – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.
4	**Loss of an 'at risk' resource** – one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.
3	**Medium term** – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.
2	**Loss of an 'expendable' resource** - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.
1	**Short-term** – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span
	shorter than any of the project phases, or in a time span of 0 to 5 years.

Reversibility - The distinction between reversible and irreversible impact is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA process. The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts. Below are some of the standard terms used in assessment relating to reversibility.

Table 14 - Reversibility

RATING	REVERSIBILITY SCALE
7	**Long term** – The impact will never be returned to its original or benchmark state. The impact cannot be reversed.
3	**Medium term** – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.
1	**Short term** – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.

Probability - The assessment of the probability / likelihood of an impact / effect has been undertaken in accordance with ratings and descriptors provided below.

Table 15 - Probability

RATING	PROBABILITY SCALE
1.0	Absolute certainty / will occur
0.9	Never certainty / very high probability
0.7 – 0.8	High probability / to be expected
0.4 – 0.6	Medium probability / strongly anticipated
0.3	Low probability / anticipated
0.2	Possibility
0.0 – 0.1	Remote possibility / unlikely

(vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives

There are no alternative sites, as a result the assessment focused on this specific site (preferred site). The site visit, and site walk while analysing and observing the physical environment on the project site. Desktop analysis of the site using google image. We also used professional judgment, observation on site and past experience. Stakeholders' consultation which entailed tapering on their knowledge of the area.

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

Positive impacts of the activity

The main positive impact from the proposed development is its contribution to socio-economic benefit that the proposed development will have for the community of the Dannhauser Area. Nyezenhle Holdings (Pty) Ltd will also grow in experience and in business which will create opportunity for them to go into other business ventures with more employment opportunities to be created. The project will contribute in food security.

Negative impacts of the activity

These include vegetation removal on site which may render the soil susceptible to erosion. The odour and health risks associated with improper handling of waste during the operational phase. Odour emissions, caused by a large number of contributing compounds including ammonia (NH3), Volatile Organic Compounds and Hydrogen Sulphide (H2S) can adversely affect the lives of people living in vicinity of the site.

The negative impacts from the project will be mitigated against to reduce them to minimal levels and cancel possible impacts on the surrounding environment and community. Should the Environmental Authorisation be issued, it will include strict conditions that the Developer must adhere to with the conditions formulated in consideration of the Environmental Impact Assessment conducted and associated comments and recommendations and comments from State Departments contacted during the Public Participation Process.

(viii) The possible mitigation measures that could be applied and level of residual risk

Mitigation - In the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact. The significance of environmental impacts has therefore been assessed considering mitigation measures.

- Reduction of soil erosion by ensuring that there is ground cover and vegetation, and diverting water appropriately to avoid run off.
- Stormwater management plan must be implemented to the letter.

- Ensuring that waste is disposed in line with acceptable environmental standards.
- Dust suppression by watering the site during construction phase.
- Ensuring that noise levels are within legally acceptable levels by adhering to set standards.
- Unnecessary vegetation removal must be avoided through:
    - Clearly marking the site boundaries prior to the commencement of construction activities.
    - Areas beyond the site and construction area must be regarded as no-go zones.
    - Access to the site for construction vehicles must be designated and no construction vehicles should be allowed to access the site in any other way than the designated access.
    - All waste produced during the construction phase must be collected and disposed of at the nearest approved waste dumping site. Waste management plan must also be implemented during the operational phase.
    - All hazardous substances must be stored on an impermeable surface during both construction and operational phase. Concrete mixing must take place on mixing boards or on liner. Should any large amount of fuel be kept on site, the fuel must be kept on a properly established bunded area with the capacity to store/hold the contents of the container(s) placed on it.
    - Although the surrounding properties are associated with farming, noise control measures must be implemented. Dust should not be much of a problem but considering that the road leading to the site is gravel road, low travel speeds must be kept to at all times.
    - All areas that are not engineered which were cleared during the construction phase must be re-vegetated/grassed. Alien plant eradication must take place within and around the site during construction and operational phase.
    - Odour and flies must be controlled by minimizing the surface of manure in contact with air – frequent collection of litter (once a week in dry seasons and twice a week in rainy seasons), closed storage (bags or closed sheds).
    - Proper management of cattle manure and any litter during the operational phase will be crucial to avoiding/minimizing impacts.
    - As many people as possible must be employed from the local community during both construction and operational phase.
    - Workers must be provided with the necessary safety equipment for tasks to be conducted during both the construction and operational phase.
    - Ensuring that there is no pollution taking place on site during construction and post construction by continuous monitoring by the ECO.
    - The earthworks must be carried out in accordance to SANS 1200 D.
    - Implementation of the EMPr and its recommendations.

(ix) The outcome of the site selection matrix;

There was no site selection matrix applied as the site is zoned agriculture, and is currently conducting the farming operations.

(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such

There is no alternative site identified because of the nature of the proposed farming project which requires a Farm. Several farms were looked at by the applicant. The other two farms were not pursued any further due to their proximity to the watercourse(s).

The following are distinctive for the site and chosen location:

- The site has not shown any serious environmental fatal flaws in terms of the assessment.
- The proposed activity will play a critical role in ensuring economic development of the area.
- The site is located on a rather isolated area with fewer people walking and travelling in the vicinity.
- The site is seen as ideal given the nature of the proposed activity as it is currently used for the same activity.

(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity;

As highlighted above, there are no alternatives in terms of site. The location within the Farm has been identified in terms of ensuring the ideal proximity to existing infrastructure, so that the disturbance is not widespread in terms of site clearance.

(I) A FULL DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS THE ACTVITY WILL IMPOSE ON THE PREFERED LOCATION THROUGH THE LIFE OF THE ACTIVTY, INCLUDING –

(i) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and

Impacts and risks that can be associated with the proposed development considering the scope of work, site and receiving environment are listed below. These are the impacts identified thus far with the list to be refined throughout the Basic Assessment Process.

- Vegetation Removal
- Soil Erosion
- Soil Contamination
- Nuisance: Noise and dust, in particular during construction.
- Odour from cattle manure.
- Visual impact
- Socio-Economic
- Health and Safety

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment**.** Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

(ii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures

Table 16 – Impacts and mitigation

Pre construction phase and construction phase

Impact and risk	**Description / Significance**	**Mitigation**
Stripping of topsoil, sub-soil and vegetation for the construction of the cattle feedlots.	• Decreased topsoil quality resulting in lowered plant growth rate. • Loss of indigenous species (flora & fauna). • Reduction in species diversity. • The removal of groundcover and earthworks may lead to soil erosion on site.	• An ECO must be appointed throughout the various phases of the project. • Topsoil monitoring must take place prior to soil stripping and backfilling. The ECO must determine if the quality of soil is satisfactory, prior to backfilling. • Topsoil must be sequentially removed in accordance with the requirements on site. ▪ All topsoil must be adequately stored: o On a flat surface; o Not exceed two metres in height; o Suitably covered if stored for prolonged periods of time. o Separate from sub-soil and other stockpiles. o Not near watercourses, which is not applicable in this instance. • No clearance of vegetation must be allowed to take place outside of the construction footprint. • Environmental induction must be made part of training for all workers on site during both the construction and operational phases and the issue of alien plants and soil erosion must be covered in these talks.

		• Feed waste may not be disposed of on or around the site. The Developer must ensure that such and all other waste forms are disposed of in a manner that does not culminate in any environmental harm/degradation.
Use and storing of potentially hazardous substances	•Contamination of soil within and around the site; •Contamination of ground and surface water with seeping of contaminants into soil and pollution of runoff; •Potential health risks with possibility of fire and other occurrences that can affect staff and surrounding community.	• All hazardous substances must be stored on impermeable surfaces throughout the project life cycle. • Storage areas where flammable substances are kept must be equipped with serviced fire extinguisher. • Emergency procedures must be known to all workers and must be made part of site induction/training. • All workers that handle potentially hazardous substances must be provided with the appropriate safety clothing.
The ingress and egress of vehicles and/or from site	•Reduced photosynthesis of nearby vegetation due to dust settling on leaves; •Trampling of vegetation outside of the development footprint due to vehicle movements; •Compaction of fertile soils leading to reduced plant growth and soil quality; and •Plant die-offs due to hydrocarbon spills from vehicles. •Animal fatalities due to traffic related incidents. •Displacement due to increased noise and vibrations.	• Traffic signs much be erected throughout the site, demarcating the following: ▪ Speed limits; ▪ Sensitive areas; and ▪ No-go areas • Dust suppression must be implemented on all access roads. This practice must be carefully monitored by the ECO. • All temporary roads must receive rehabilitation prior to the closure of the site (deep-rip, backfilling of topsoil). • Vehicles may only traverse designated areas and access roads.
Nuisance: Noise and Dust.	• Dust will be as a result of earthworks and use of gravel road by construction vehicles. • Noise may be from construction vehicles as well as trucks loading and offloading cattle during operation stage.	• Slow speeds must be adhered to on the gravel road by all construction vehicles as per the recommended speed limits.
Waste management	• Pollution during the construction phase can only result from mismanagement of construction and general waste.	• Wind and scavenger proof containers must be made available and used for on-site waste storage. • Waste must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of the type of waste concerned.

		• Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. • Workers must be trained to exercise environmentally friendly methods including proper disposal of waste. • Waste must not be buried or burned on site. Only the disposal methods contained in the BAR and EMPr may be used unless otherwise approved by appointed ECO.
Socio-Economic	• Creation of employment opportunities for skilled and non-skilled locals during construction phase	• Prioritisation of the locals in terms of employment, unless if the skill is not available locally. • Terms of employment must be clearly explained to all workers during the different phases of the proposed development. • The Contractor and developer must avoid making promises to the community especially those that will be hard to keep.

Operational phase

Impact and Risk	Description and/ significance	Mitigation
Waste Management	• Some general waste in form of packaging and other materials used during the operational phase will be generated from the proposed development. • Poor management of waste during the operational phase especially animal waste result in odour and possible health impacts. • Manure contains appreciable quantities of potentially toxic metals such as arsenic, copper and zinc. In excess, these elements can become toxic to plants, can adversely affect organisms that feed on these plants, and can enter water systems through surface run-off and leaching. • Manure also contains pathogens which may potentially affect soil and water resources, particularly if poorly managed. Parasites can easily spread from manure to water supplies and can	• Wind and scavenger proof containers must be made available and used for on-site waste storage. • Waste from containers must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of such waste. • Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. • Workers must be trained to exercise environmentally friendly including proper disposal of waste. • The waste management plan for the operational phase must form part of the final EMPr and therefore be part of the conditions for the EA if one is granted. • Plant droppings must be dried out and collected as soon as possible as this will be the main source of odour during operational phase.

	remain viable in the environment for long periods of time.	• It is important that the contracted Companies and / or farmers are approached in due time to arrange appropriate schedule for the collection or delivery of manure to avoid its accumulation and associated impacts on the site.
Nuisance: Noise and Dust	• During the operational phase, noise will be from the large number of cattle on the site as well as possible noise from trucks during loading and offloading of cattle to and from the site. • Dust from trucks loading and offloading cattle during operations. • Dust from cattle dungs during operation.	• The best practices and standards must be adhered to. • It will be the responsibility of the Applicant to ensure that they are in good terms with the immediate neighbors of the site. • A complaints register must be kept which must include the compliant laid, the date it was laid, the actions taken to address the complaint and when such action was taken. • Dust suppression must be implemented on all access roads. This practice must be carefully monitored by the ECO and all water usage must be recorded throughout the project lifespan.
Air pollution and odour	• Odour from cattle manure. • Odour from carcasses	• All carcasses and cattle manure must be removed from the site before it can cause odour. • Waste Management Plan was be implemented to the letter.
Socio-Economic	• Employment opportunities will be created for locals during the operational phase of the proposed development.	• Terms of employment must be clearly explained to all workers during the different phases of the proposed development. • The developer must avoid making promises to the community especially those that will be hard to keep. • The Developer must consider giving some form of certification to workers for the skills they displayed during their employment period and some workers can be taken for training for skills such as first aid skills to further develop their skill base.

Decommissioning phase

Impact and Risk	Description and/ Significance	Mitigation
Odour	• Odour from cattle manure being left on the site. • Odour from carcases	• All waste material must be removed from the site including carcases.
Visual Impact	• Failure to ensure that all structures are removed correctly and that the site is rehabilitated accordingly will have visual impact as the site in its disturbed state will not blend in with the surrounding area.	• The site area must be appropriately rehabilitated to blend in with surrounding environment.
Water contamination	• Potentially hazardous substances could be spilled when clearing storage area. • Vehicles and machinery will also be needed during this phase and therefore the risk of fuel and other hydrocarbons will pose a threat for groundwater and surface water contamination.	• All potentially hazardous substances must be contained and disposed of at a hazardous waste disposal site. • Care must be taken in emptying conservancy tanks to not result in pollution of the surrounding area.

Cumulative impacts affect the significance ranking of an impact since it considers impacts from both on and off site. The challenge is when the impacts that are considered within standards if combined may be cumulative in nature to the level that may exceed the set standards. In this regard it is important to consider impacts in terms of their cumulative nature.

Table 17 – Cumulative impacts

Impact and risk	Cumulative impacts (past, current and foreseeable)
Soil erosion	None on site.
Fauna and flora	None anticipated, and the developer will be encouraged to use indigenous landscaping on project completion.
Air pollution	None anticipated.
Soil contamination	None anticipated.
Stockpiling	None anticipated.
Location of construction camp	Not foreseen

Destruction and disturbance of graves and heritage resources	Not foreseen
Littering and solid waste	Unlikely to be cumulative
Concrete mixing	Not cumulative in this instance
Noise (construction phase)	Not cumulative
Noise (operational phase)	Not cumulative
Traffic management	Not cumulative
Health and Safety (construction phase)	Not cumulative
Health and Safety (operational phase)	Not cumulative
Loss of species	Not cumulative.
Visual impact	Not cumulative

(J) AN ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK, INCLUDING –

- Cumulative impacts that may occur as a result of the undertaking of the listed activity during the project life cycle;
- The nature, significance and consequence of the impact and risk;
- The extent and duration of the impact and risk;
- The probability of the impact and risk occurring;
- The degree to which the impact and risk can be reversed;
- The degree to which the impact and risk may cause irreplaceable loss of resources;
- The degree to which the impact and risk can be avoided, managed or mitigated.

Table 18: Assessment of negative impacts of the preferred site and layout

Impact and Risk		Duration	Magnitude	Extent	Reversibility	Irreplaceability/Loss of Resource	Probability	Significance	Mitigation
Stripping of topsoil, sub-soil and vegetation for the construction of the feedlot farm.	Without Mitigation	3 Medium term	5 Important	2 Local	7 Long Term	3 Medium term	1.0 Absolute Certainty	**10 Medium**	• No clearance of vegetation must be allowed to take place outside of the development footprint. • A pre-construction walk through by an appropriately qualified specialists must take place for accurate marking of species for removal and / or translocation. • If any SCC or plant species high on the Red List are identified within the proposed footprint, effective rescue and relocation of them must be undertaken. • No protected species may be removed and/or destroyed without a valid permit.
	With Mitigation	1 Short term	3 Marginal	1 Site related	3 Medium term	2 Expendable	1.0 Absolute Certainty	**5 Low**	

	Construction Phase								
Use and storing of potentially hazardous substances	Without Mitigation	3 Medium term	3 Marginal	2 Local	3 medium Term	4 Medium term	1.0 Absolute Certainty	8 Medium	• All hazardous substances must be stored on impermeable surfaces throughout the project life cycle. • Storage areas where flammable substances are kept must be equipped with serviced fire extinguisher. • Emergency procedures must be known to all workers and must be made part of site induction/training • All workers that handle potentially hazardous substances must be provided with the appropriate safety clothing.
	With Mitigation	1 Short term	2 Unimportant	1 Site Related	1 Short Term	1 Short term	1.0 Absolute Certainty	**4 Low**	
Impact and Risk			**Magnitude**	**Extent**	**Reversibility**	**Irreplaceability/Loss of Resource**	**Probability**	**Significance**	**Mitigation**

The ingress and egress of vehicles to and from site.	Without Mitigation	3 Medium term	3 Marginal	2 Local	1 Short Term	1 Short term	1.0 Absolute Certainty	**8 Medium**	• Traffic signs much be erected throughout the site, demarcating the following: ▪ Speed limits ▪ Sensitive areas; ▪ No-go areas • Dust suppression must be implemented on all access roads. This practice must be carefully monitored by the ECO and all water usage must be recorded throughout the project lifespan. • All temporary roads must receive rehabilitation prior to the closure of the site (deep-rip, backfilling of topsoil). • Vehicles may only traverse designated areas and access roads.
	With Mitigation	1 Short term	2 Unimportant	1 Site Related	1 Short term	1 Short Term	1.0 Absolute Certainty	**4 Low**	
Waste Management	Without Mitigation	3 Medium term	3 Marginal	2 Local	3 Medium Term	2 Expandable	1.0 Absolute certainty	**8 Medium**	• Wind and scavenger proof containers must be made available and used for on-site waste storage. • Waste from containers must regularly be disposed
	With Mitigation	1 Short term	2 Unimportant	1 Site Related	1 Site related	1 Short term	1.0 Absolute certainty	**4 Low**	

									of at the nearest landfill site that is permitted to handle and dispose of such waste. • Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. • Workers must be trained to exercise environmentally friendly methods including proper disposal of waste. • Waste must not be buried or burned on site. Only the disposal methods contained in the BAR and EMPr may be used unless otherwise approved by appointed ECO.
Nuisance: Noise and Dust	**Without Mitigation**	**3 Medium term**	**3 Marginal**	**2 Local**	**3 Medium Term**	**1 Short Term**	**1.0 Absolute Certainty**	**8 Medium**	• The distance of the site from the nearest residence will mainly

	With Mitigation	**1 Short term**	**2 Unimportant**	**1 Site related**	**1 Short Term**	**1 Short Term**	**1.0 Absolute Certainty**	**4 Low**	mitigate this impact in terms of noise and dust emanating from the site. • Additionally: unnecessary noise from the site must be avoided during both the construction and operational phase. • Slow speeds must be adhered to on the gravel road by all construction vehicles as per recommended speed limits for such roads. • No loud music must be allowed on the site during the construction phase.
Socio-Economic	Without Mitigation	7 Long term	5 Important	2 Local	3 Medium Term	0 No loss	1.0 Absolute Certainty	**14 Moderate**	• The Contractor must be careful not to appoint any local workers without going through local

	With Mitigation	3 Medium term	4 Noticeable	2 Local	7 Long Term	0 No loss	1.0 Absolute Certainty	**9 Medium**	leadership as this could result in unnecessary protests. • Terms of employment must be clearly explained to all workers during the different phases of the proposed development. • The Contractor and developer must avoid making promises to the community especially those that will be hard to keep. • The Contractor and Developer must consider giving some form of certification to workers for the skills they displayed during their employment period.
	Operation Phase								

Impact and Risk			Magnitude	Extent	Reversibility	Irreplaceability/Loss of Resource	Probability	Significance	Mitigation
Waste Management	Without Mitigation	7 Long term	5 Important	2 Local	3 Medium Term	7 Long term	1.0 Absolute certainty	**14 Medium**	• Wind and scavenger proof containers must be made available and used for on-site waste storage. • Waste from containers must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of such waste. • Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. • Workers must be trained to exercise environmentally friendly methods including proper disposal of waste. • The Developer approved waste management plan for the operational phase must form part of the final EMPr and therefore be part of
	With Mitigation	3 Medium term	3 Marginal	1 Site Related	1 Site related	3 Medium term	1.0 Absolute certainty	**7 Low**	

									the conditions for the EA if one is granted. • It is important that all farmers are approached in due time to arrange appropriate schedule for the collection or delivery of manure to avoid its accumulation and associated impacts on the site.
Nuisance: Noise and Dust	Without Mitigation	3 Marginal	3 Marginal	2 Local	3 Medium Term	5 Long Term	1.0 Absolute certainty	**8** **Medium**	• There may be no loud music on the site. • The best practices and standards must be adhered to. • It will be the responsibility of the Applicant to ensure that they are in good terms with the immediate neighbors of the site. • A complaints register must be kept which must include the compliant laid, the date it was laid, the actions taken to address the complaint and when such action was taken.
	With Mitigation	1 Short term	2 Unimportant	1 Site	1 Short Term	0 No loss	1.0 Absolute certainty	**4** **Low**	

Socio-Economic	Without Mitigation		4 Noticeable	2 Local	3 Medium Term	0	1.0 Absolute Certainty	**9 Moderate**	• Terms of employment must be clearly explained to all workers during the different phases of the proposed development. • The developer must avoid making promises to the community especially those that will be hard to keep. • The Developer must consider giving some form of certification to workers for the skills they displayed during their employment period and some workers can be taken for training for skills such as first aid skills to further develop their skill base.
	With Mitigation		7 Total	5 Regional	7 Long Term	0	1.0 Absolute Certainty	**19 Moderate**	
	Decommission/Closure								
Impact and Risk			**Magnitude**	**Extent**	**Reversibility**	**Irreplaceability/Loss of Resource**	**Probability**	**Significance**	**Mitigation**
	Without Mitigation	3 Marginal	3 Marginal	2 Local	3 Medium Term	1 Short Term	1.0 Definitely	**8 Medium**	

Pollution and odour	With Mitigation	1 No impact	1 No Impact	1 Site Related	1 Short Term	0 None	0	**3** **Low**	• All waste material must be removed from the site. • The appropriate steps must be followed to empty and decommission conservancy tanks on site.
Visual Impact	Without Mitigation	3 Marginal	2 Unimportant	2 Local	1 Short Term	0 No Loss of Resource	0.2 Possibility	**7** **Medium**	• The site area must be appropriately rehabilitated to blend in with surrounding environment.
	With Mitigation	1 No impact	1 No Impact	1 Site Related	1 Short Term	0 No Loss of Resource	0.1 Unlikely	**3** **Low**	
Water contamination	Without Mitigation	4 Discernible	4 Discernible	1 Site Related	3 Medium Term	3 Medium Term	1.0 Definitely	**9** **Medium**	• All potentially hazardous substances must be contained and disposed of at a hazardous waste disposal site. • Care must be taken in emptying conservancy tanks to not result in pollution of the surrounding area**.**
	With Mitigation	1 No impact	1 No Impact	1 Site Related	1 Short Term	1 Short Term	0.2 Possibility	**3** **Low**	

The overall significance of an impact / effect has been ascertained by attributing numerical ratings to duration, magnitude and extent. The numerical scores obtained for each identified impact have been multiplied by the probability of the impact occurring before and after mitigation. High values suggest that a predicted impact / effect is more significant, whilst low values suggest that a predicted impact / effect is less significant.

Impact Significance

Considering the table above, the average significance of potential impacts of the proposed development without mitigation is **Medium** and the average significance when considering implementation of mitigation measures is **Low**. It is therefore important that the implementation of the proposed development is closely monitored to assess and monitor compliance levels on the site and take necessary measures if compliance is not at satisfactory levels to successfully mitigate against potential impacts.

Average Impact Significance Without Mitigation	9.25 Medium
Average Impact Significance with Mitigation	5.75 Low

(K) WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALSITS REPORT COMPLYING WITH APPENDIX 6 TO THESE REGULATIONS AND AN INDICATION AS TO HOW THESE FINDINGS AND RECOMMENDATIONS HAVE BEEN INCLUDED IN THE FINAL REPORT; -

SPECIALISTS' STUDIES:

The following are the specialist studies that were recommended through the screening tool. Where applicable, reasons have been given for not undertaking certain specialist studies which had been recommended as per the pre-application screening tool and summary of findings for those undertaken are included.

Landscape/Visual Impact Assessment

The proposed development is located on a remote site, which is located within the farming community. The site is already used for farming activities. The Farm adjacent to the proposed one is also having feedlots, therefore there will be no visual impact anticipated in terms of the landscape.

Therefore, the EAP is of the view that there will be no significant visual impacts to warrant involvement of landscape/visual impact specialist assessment.

Archaeological and Cultural Heritage Impact Assessment and Palaeontology Impact Assessment

The current walk about on site has not identified any heritage objects including the graves. There are no visual heritage resources or features or buildings that seems to be of heritage significance.

However, KZN Amafa and Research Institute will be consulted for their formal comments on heritage, archaeological and palaeontological aspects.

Terrestrial Biodiversity Impact Assessment

As indicated above, the assessment that included plant and animal species was conducted by our in-house conservationist for the following reasons:

- The site is already within the Farm that is in operation.
- The site is already disturbed, and is mowed by the farm management all the time as part of farming operations veld management.t

The EAP is of the view that there is no need for a fully fledged Terrestrial Biodiversity Study in this context. Furthermore, the development footprint is about 18% of the total Farm. This makes the clearance of the already disturbed site to be less significant in the context of the proposed mitigation measures and EMPr.

Aquatic Biodiversity Impact Assessment

Chelmsford Dam is located at a distance of over 500m from the site. Moreover, there is no watercourse nor wetlands identified within the Farm.

However; the nature of the site, proposed development and surrounding environment in such that the river and all aquatic life will definitely not be affected by the proposed development especially where best practice measures are implemented. Moreover, there is a natural buffer between the site and the river in the form of a cliff.

Therefore, an aquatic assessment is not seen as necessary.

Hydrological study

The explanation provided under the Aquatic assessment above is also applicable in this instance.

Feasibility / Socio-Economic Impact Assessment

The Business Plan presented to the KwaZulu – Natal Department of Agriculture and Rural Development (DARD) for funding demonstrated that the project is feasible, and sustainable financially. The developer has been provisionally approved subject to Nyezenhle Holdings (Pty) Ltd obtaining an environmental authorisation.

Plant Species Assessment

Covered within the terrestrial biodiversity assessment.

Animal Species Assessment

Covered within the terrestrial biodiversity assessment.

Traffic Impact Assessment

Given the distance of over 1 km from N11 and the remote location of the site, the traffic impact assessment has not been conducted without comments from the relevant authorities i.e. SANRAL and KZN Department of Transport.

Our understanding is that SANRAL will not allow any direct entry from its N roads to the proposed development which is not the case in this regard, and further they attach a distance of about 180 metres from the development.

The two authorities have been consulted for their comments in this regard.

Ambient Air Quality Impact Assessment

Looking at the location of the site within the farming community and current operations the EAP is of the view that this study is not necessary.

The Waste Management Plan has been compiled which fully covers the mitigation measures relating to air pollution and issues of odour and flies.

Geotechnical Assessment

A geotechnical study has not been conducted due to the nature of the project. The project entails only the feedlots in the form of kraals, there are no buildings nor structures with deep foundations.

Waste Management Plan

A Waste Management Plan has been compiled and is attached as **Appendix D (1).**

(L) AN ENVIRONEMNTAL STATEMENT WHICH CONTAINS –

(i)a summary of the key findings of the environmental impact assessment;

The assessment of the impacts thus far have indicated a very low significance. The main issue is the clearance of the site and the susceptibility of the soil which may result in soil erosion. Another concern is that of waste management particularly during the operational phase as this can lead to pollution. Linked to this concern is the issue of flies and odour which would impact the area around the site. However, a Waste Management Plan has been complied and is attached to this report with detailed mitigation measures.

Therefore, adherence to recommendations and guidelines in the EA if one is issued and associated EMPr will be of critical importance to the success of the proposed development from risks/environmental point of view. The waste management plan must not be followed “blindly” but its effectiveness must be assessed on a regular basis to ensure continued effectiveness where amendments may be required. For example, the waste disposal frequency may need to be increased or decreased during particular time periods.

The mitigation measures will be made part of the final BAR and EMPr,

(ii) ***a map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and***

See Figure 1 above.

(iii) ***a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;***

Positive implications of the activity

The positive implications include creation of ±40 permanent jobs and the enhancement in economic development of the area. The project will ensure food security in the country, and the Province of KwaZulu – Natal in particular. The site and the Farm is already zoned agriculture, and the project will ensure the optimal use of land, that is currently underutilised.

Negative implications of the activity

Potential negative impacts include:
•Environmental and human health impacts associated with waste mainly during the operational phase;
•Clearance of vegetation and susceptibility of the soil to erosion.;
•Disruption of the habitat and indigenous vegetation;

With the implementation of mitigation measures, none of the anticipated negative impacts will occur at significant levels. Impacts connected with waste management, health and safety and pollution may have devastating impacts if not managed properly.

It is therefore particularly important that the need for compliance is clearly highlighted to the Developer and actions which could be taken against the Developer. The EAP has emphasized this point to the Developer, and the harsh consequences of non-compliance, that may ensue including the withdrawal of the Environmental Authorisation.

(M) BASED ON THE ASSESSMENT, AND WHERE APPLICABLE, IMPACT MANAGEMENT MEASURES FROM SPECIALISTS' REPORTS, THE RECORDING OF THE PROPOSED IMPACT MANAGEMENT OUTCOMES FOR THE DEVELOPMENT FOR INCLUSION IN THE EMPr;

In this assessment the EAP has specifically focused on the mitigation measures which are aimed at impact management for impacts that would most likely have significant outcomes:

- All the mitigation techniques found under Tables 16 and 18 must be incorporated into the Environmental Management Programme (EMPr)
- The development will be restricted to the approved development footprint.
- The ECO must be appointed to oversee that the conditions stipulated in the Environmental Authorisation/EMPr are carried out.

- Pre – construction environmental induction for all construction staff on site must be conducted, this will include the following as a minimum requirement to be covered:
    - Dust suppression - Agreed practical methods confirmed by the Contractor; All water use on site must be recorded throughout the lifespan of the project.
    - Demarcation of no go areas.
    - Expected conduct of staff on site – e.g. no fire lighting, reporting incidents and relationship with ECO.
    - Objectives and conditions of the approved EA, EMPr, Method Statements, ECO Audit Reports and Recommendations etc.
    - Spill protocol (small and large spills)
    - All areas earmarked to be cleared, must be adequately staked and inspected by the ECO to ensure that no fauna and/ or indigenous vegetation is accidentally injured/ killed / removed by construction activities on site.
    - An accurate account of water usage (drinking, dust suppression etc.) must be kept by the Contractor.
- All construction vehicles should adhere to clearly defined and demarcated roads. No ad hoc roads may be constructed without prior permission of the ECO and Engineers.
- Dust suppression and erosion management should be an integral component of the construction process.
- No dumping or burying of building waste or spoil material from the development should take place on areas other than a licensed landfill site.
- All use of pesticides must be done under supervision of the appointed ECO.
- All hazardous materials should be stored appropriately to prevent contamination of the proposed development site. Any accidental chemical, fuel and oil spills that occur at the project site should be cleaned up appropriately in line with as relevant to the nature of the spill.
- An Environmental Incident Register must be kept throughout the project lifecycle;
- If trenches need to be dug for drainage or other purposes, these should not be left open for extended periods of time as fauna may fall in and become trapped in them and this could also result in human injuries.
- Control measures must be in place during construction and the operation phases of the development to prevent the proliferation of noxious weeds on site.
- The existing septic tank system must not impact any water resource or any other person's water use, property or land; and measures must be put in place to prevent possible contamination.
- No health or nuisance impact must arise from the sewage treatment and disposal system.
- The use of chemical toilet facilities must not cause any pollution to any water resources as well as pose any health hazard. These toilets must be situated outside of the 1:100year flood line of any watercourse. In addition, a maintenance plan for the servicing of these toilets must be drawn up and strictly adhered to in order to prevent malfunctioning and neglect. No form of secondary pollution should arise from the disposal of sewage and/or wastewater.

- Waste generated must not be dumped in environmentally sensitive areas. Contaminated soils or any other hazardous material must be disposed of at a permitted hazardous class landfill site that is authorized to accept the said material. The manner in which the cattle manure is managed and disposed must not culminate in offsite pollution.
- The storage of oils, materials, chemicals, etc. to be used during the construction phase must not pose a risk to the surrounding environment. Such storage areas must be located outside of the 1:100 year flood line of any watercourses and access to these areas must be controlled. Temporary bunds must be constructed around chemical or fuel storage areas to contain any possible spillages.

(N) ANY ASPECTS WHICH WERE CONDITIONAL TO THE FINDINGS OF THE ASSESSMENT EITHER BY THE EAP OR SPECIALIST WHICH ARE TO BE INCLUDED AS CONDITIONS OF AUTHORISATION;

- A Stormwater Management Plan for the proposed development must be submitted to the local authority and approved prior to the commencement of the construction phase.
- The environmental impacts that could have significant impacts to the receiving environment are closely linked with the Waste Management on site during the operational phase especially carcases and cattle manure. Therefore, strict conditions must be included in the conditions of the EA for waste management including frequency of waste disposal. The waste management plan must be approved by EDTEA prior to the commencement of the operational phase of the proposed development.
- Appropriate waste management methods are identified and implemented to mitigate against any pollution or health hazards.

(O) A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINITES, AND GAPS IN KNOWLEDGE WHICH RELATE TO THE ASSESSMENT AND MITIGATION MEASURES PROPOSED;

The impact assessment has been conducted with the consideration of the project scope as per description given by the Developer. If the project is altered in any way, there may be change in impacts that occur on site.

The EAP's view that the proposed developments socio-economic impacts outweigh negative potential environmental impacts assumes that conditions of the EA, should one be issued, and mitigation measures in the EMPr will be adhered to which will reduce potential negative impacts.

(P) A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION;

Concluding remarks including preferred project location

There are no alternative sites for the proposed development since the mentioned site is the only ideal Farm that is available to the developer. However; two farms were identified prior to the choosing of this one, but both were regarded as unsuitable due to the proximity of the watercourse.

The assessment has confirmed that the proposed development has some aspects that have the potential to cause significant impacts within and around the site. It is in this context that the emphasis in placed on the importance of implementation of the recommendations and mitigation measures. Strict monitoring of the development will be important for the construction phase and early stages of the operational phase.

Opinion as to whether the proposed activity should be authorized

The proposed development will have significant socio-economic benefit for the local community especially considering that ±40 permanent jobs will be on offer during the operational phase, which is a significant number since the area of Dannhauser is characterised by high unemployment rate. The proposed development should therefore be considered favourably with guidelines and conditions to mitigate against potential negative impacts. With such guidelines and measures, all potential negative impacts can be reduced to levels that allow for the preservation of overall biodiversity and ecosystem functionality and integrity.

Conditions to be made part of the EA

- All waste produced during the construction phase must be disposed of at the nearest landfill site and proof of safe waste disposal must be kept on site.
- Waste Management Plan must be implemented to the letter.
- All recommendations made must be part of the conditions of the EA.
- The EMPr will form an integral part of the EA.

Overall the identified impacts are controllable and can be mitigated as long as the monitoring function is ongoing during the construction phase and beyond. The EMPr and compiled plans will be very crucial during all phases of the project. The Basic Assessment therefore concludes with a recommendation for approval with strict adherence to the set conditions, recommendations and EMPr.

(Q) WHERE THE PROPOSED ACTIVTY DOES NOT INCLUDE OPERATIONAL ASPECTS; THE PERIOD FOR WHICH THE ENVIRONEMNTAL AUTHORISATION IS REQUIRED, THE DATE ON WHICH THE ACTIVITY WILL BE CONCLUDED, AND THE POST CONSTRUCTION MONITORING REQUIREMENTS FINALISED;

The environmental authorization has to be a lifetime requirement. The activity is likely to commence immediately after the environmental authorization is issued, of course if granted, with construction expected to run for a duration of 4 months from commencement to completion. There must be post construction habitat monitoring for at least three months to monitor the condition of the receiving environment.

(R) AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO;

(i) the correctness of the information provided in the reports at the time of compilation;
(ii) The inclusion of comments and inputs from stakeholders and I&APs;
(iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and
(iv) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and

I, confirm that the information provided in the report is correct; The inclusion of comments and inputs from stakeholders and I&APs is correct; The inclusion of inputs and recommendations from the specialist reports if any is correct; Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and Commissioner of oaths: Commissioner: Place: Date:

(S) WHERE APPLICABLE, DETAILS OF ANY FINANCIAL PROVISIONS FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIOING MANAGEMENT OF NEGATIVE ENVIRONEMNTAL IMPACTS

The applicant must make provision for rehabilitation in the form of tree planting and indigenous landscaping on project completion. There is also a need for alien species eradication programme, to address the issue of invader species mostly associated with earthworks relating to the project in terms of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and related Regulations dated 2014.

(T) ANY SPECIFIC INFORMATION THAT MAY BE REQUIRED BY THE COMPETENT AUTHORITY; AND

NONE.

(U) ANY OTHER MATTERS REQUIRED IN TERMS OF SECTION 24 (4) (a) AND (b) OF THE ACT.

NONE, as all issues relating to organs of state with jurisdiction on site have been covered. Furthermore, all impacts, alternatives, mitigation, option of not implementing an activity,

issues of monitoring and assessment thereof have been addressed by this draft Basic Assessment report.