

**PROPOSED DEVELOPMENT OF LARGE STOCK UNIT (CATTLE) FACILITIES  
AND ASSOCIATED INFRASTRUCTURE ON PORTION 1 OF THE FARM  
STERKFORTEIN NO. 8501 WITHIN DAUNHAUSER LOCAL MUNICIPALITY,  
KWAZULU – NATAL (REF: DC25/0008/2021) - WASTE MANAGEMENT PLAN**

Report prepared for

**DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND  
ENVIRONMENTAL AFFAIRS**

and

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## 1. INTRODUCTION AND BACKGROUND

The Department of Economic Development, Tourism and Environmental Affairs (EDTEA) is responsible for ensuring compliance to several pieces of environmental legislations like the National Environmental Management Act (NEMA) No. 107 of 1998, National Environmental Management: Waste Act (Act 59 of 2008) and other SEMAs.

The main focus of this plan is to ensure that Nyezenhle Holdings (Pty) Ltd project is in compliance and in line with the Waste Management Act, as amended by Government Notices issued in terms of the same Act and waste standards.

Nyezenhle Holdings (Pty) Ltd is proposing the development of feedlots facilities, with 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.

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

## 2. KEY DEFINITIONS

**“general waste”** means waste that does not pose an immediate hazard or threat to health or to the environment, and includes –

- (a) domestic waste;
- (b) building and demolition waste;
- (c) business waste: and
- (d) inert waste;

**“hazardous waste”** means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment;

**“recovery”** means the controlled extraction of a material or the retrieval of energy from waste to produce a product;

**“recycle”** means a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material;

**“storage”** means the accumulation of waste in a manner that does not constitute treatment or disposal of that waste;

**“temporary storage”** means a once off storage of waste for a period not exceeding 90 days;

**“treatment”** means any method, technique or process that is designed to -

change the physical, biological or chemical character or composition of a waste; or remove, separate, concentrate or recover a hazardous or toxic component of a waste; or destroy or reduce the toxicity of a waste, in order to minimise the impact of the waste on the environment prior to further use or disposal:

**“Waste”** means any substance, whether or not that substance can be reduced, re-used, recycled and recovered -

(a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of;

(b) which the generator has no further use of for (he purposes of production;

(c) that must be treated or disposed of; or

(d) that is identified as a waste by the Minister by notice in the *Gazette*,

and includes waste generated by the mining, medical or other sector, but—

(i) a by-product is not considered waste; and

(ii) any portion of waste, once re-used, recycled and recovered, ceases to be waste;

**“Waste stream”** a continuous flow of waste from an industry, activity, process or group in great numbers with chickens being the most numerous. Chickens raised for eggs are usually called layers while chickens raised for meat are often called broilers.”

### **3. PURPOSE AND OBJECTIVE OF THE PLAN**

- Ensure that Nyezenhle Holdings (Pty) Ltd is in compliance to NEMA, National Environmental Management: Waste Act (Act 59 of 2008), other SEMAs and the waste standards.
- The main driving force behind the compilation of this Waste Management Plan is to outline measures that are to be implemented in order to minimize adverse environmental impacts that are either; direct, indirect or cumulative associated with the development of the proposed feedlots facilities. This is done by encouraging good management practices through planning and commitment of environmental issues and complying to all applicable laws, Regulations, standards and Guidelines for the protection of the environment. The Waste Management Plan serves as a guide for contractors and employees on their roles and responsibilities concerning environmental management on site. Furthermore, it provides a framework for environmental monitoring throughout the development’s life cycle.

- This document provides appropriate mitigation measures designed to minimize or eliminate the significant adverse impacts that may be caused as a result of the proposed project and to also enhance positive impacts.

#### **4. OBJECTIVES OF THE WASTE MANAGEMENT PLAN**

*The Waste Management Plan aims to achieve the following objectives:*

- To provide a structure or framework within the environmental management requirements which will be implemented, audited and reported on, in order to ensure that potential impacts on the environment are minimized.
- To set out the mitigation measures and environmental specifications which are required to be implemented during various phases of the development in order to minimize the extent of environmental impacts, to manage environmental impacts and where possible to improve the condition of the environment.
- To state standards and guidelines that are required to be achieved in terms of environmental legislation and authorization conditions.
- To provide a clear indication of the environmental management requirements of each of the role players involved.

#### **5. LEGAL CONSIDERATIONS**

##### **5.1. Constitution of the Republic of South Africa, 1996(Act No. 108 of 1996)**

The Constitution of the Republic of South Africa, 1996 is a key document in the protection of the environment in all its aspects.

Section 24 states that – everyone has the right –

- (a) To an environment that is not harmful to their health or well-being; and
- (b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that are –
  - (i) Prevent pollution and ecological degradation;
  - (ii) Promote conservation; and
  - (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development

It is the general expectation of the citizens through legislation that industries and organizations that are responsible for generating waste, ought to manage the waste in a way that will not cause pollution and thus negatively affect the health and wellbeing of humans.

## **5.2. National Environmental Management Act, 1998 (Act No. 107 of 1998)**

The National Environmental Management Act (NEMA) provides the legislative framework for Integrated Environmental Management (IEM) in South Africa.

Section 2 (1) of NEMA establishes a set of principles that apply to the activities of all organs of state that may significantly affect the environment.

Section 28(1) of NEMA states that “every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorized by law or cannot reasonably be avoided or stopped, to minimize and rectify such pollution or degradation of the environment”.

This places a huge responsibility on individuals embarking on activities that have a potential to harm the environment.

## **5.3. National Environmental Management Waste Act (Act No. 59 of 2008)**

This piece of legislation came into effect on 1 July 2009. Legislation regulating waste management has been historically fragmented in South Africa, however, the coming into effect of the National Environmental Management: Waste Act, No. 59 of 2008 presented an opportunity for a more holistic approach.

The Waste Act introduced a legislative element of some of the issues that have been a common practice, but not compulsory. Among other things the Act has introduced waste information system, development of integrated waste management plans and the national waste management strategy. All organs of state and the general public are in essence bound by the waste management strategy.

Some of the objectives of the Waste Act are articulated as follows:

- to protect health, well-being and the environment by providing reasonable measures for:
  - avoiding and minimising the generation of waste;
  - reducing, re-using, recycling and recovering waste;
  - treating and safely disposing of waste as a last resort;
  - preventing pollution and ecological degradation;
  - remediating land where contamination presents, or may present, a significant risk of harm to health or the environment;

## **5.4. National Waste Management Strategy (1999)**

The National Waste Management Strategy presents a long-term plan for addressing issues, needs and problems experienced with waste management in South Africa.

It is also an action plan taking forward the goals of the White paper on Integrated Waste Management and Pollution Control. The priority initiatives that are identified and addressed by the strategy, among other things include:

- Waste Minimisation;
- Recycling;
- Waste Collection and Transport

#### **5.5. National Water Act, (Act No. 36 of 1998)**

The National Water Act (NWA) administered by the Department of Water and Sanitation aims to manage and protect the national water resources to achieve sustainable use of water for the benefit of all water users.

The purpose of the Act is to ensure that the nation's water resources are protected, used, developed, conserved, and managed in ways that take into account promoting the efficient, sustainable and beneficial use of water in the public interest so to manage drought, floods and protecting aquatic and connected ecosystems.

**Section 19** of the act focuses on the prevention and remedying effects of pollution.

**Section 20** of the Act deals with accidents and the control of emergencies. Any incidents that cause pollution or may cause pollution of a water resource must be reported to DWS and immediate remedial measures undertaken.

#### **5.6. The Hazardous Substances Act 15 of 1973**

This piece of legislation governs the control of substances that may cause ill health or death in humans by reason of their toxic, corrosive, irritant, flammability or pressure effects. The Act provides for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith. A license is required for an operation that stores, handles and sells Group I substances. The Act also prescribed the disposal of certain hazardous substances and their containers.

#### **5.7. National Health Act (Act No.61 of 2003)**



The Health Act provides measures for the promotion of health of citizens of South Africa, and is administered by the Department of Health. The Act has impact on waste management in that it obliges local authorities to prevent nuisances and offensive conditions within their areas of jurisdiction.

#### **5.8. The National Environmental Air Quality Act (Act No. 39 of 2004)**

This act aims to reform the law regulating air quality in order to protect the environment, by providing reasonable measures for the prevention of pollution and ecological degradation, and for securing ecologically sustainable development while promoting justifiable economic and social development to provide for national norms and standards, regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.

#### **5.9. Conservation of Agriculture Resources (Act No. 43 of 1983)**

The Conservation of Agricultural Resources Act (CARA) aims to provide for control over the utilization of natural agricultural resources in order to promote the conservation of the soil, water resources and vegetation and to combat weeds and invasive plants.

#### **5.10. Occupational Health and Safety, (Act No. 85 of 1993)**

The Occupational Health and Safety Act 85 of 1993 is South Africa is the main legislation concerning health and safety of employees. It also aims to protect persons who are not at work against hazard to health and safety arising out of or in connection with the activities of persons at work.

The Act places the responsibility on the employer to ensure a safe and healthy working environment and to cause every employee to be made conversant with health and safety requirements relevant to their work. At the same time the Act places the responsibility on the employee to follow its employer's health and safety procedures and instructions.

Several Regulations have been promulgated under the Act that are relevant to the development of this nature including the following:

- General Administrative Regulations, 1994
- Lead Regulations, 2003
- Regulations for Hazardous Chemical Substances, 1995
- Hazardous Biological Agents of 2001;
- General Safety Regulations, 1986
- Environmental regulations for workplaces (Department of Labour, 1994); and
- Construction Regulations, 2003.

All waste management activities need to be carried out in accordance with the requirements of the OHS Act and must include the following activities:

- Waste Management Practices must be safe and without risk;
- Risk Assessments conducted will include waste related activities;
- Waste management training will be provided to employees and contractors;
- Written work instructions will be provided where necessary; and
- Relevant personal protective equipment and respiratory protective equipment must be provided as last resort after all migratory measures have been reviewed.

### **5.11. Waste Management Activities**

The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) introduced a list of waste management activities that are likely to have detrimental effect on the environment. Those falling within the ambit of the scheduled activities trigger the application of a waste license. The Schedule has come with three categories i.e. Category A, B and C imposing certain obligations to people handling waste.

#### **(i) Category A**

The waste management activity that falls under this Category (schedule 1) of NEMWA (59 of 2008) needs a basic assessment process as contained under the Environmental Impact Assessment Regulations under section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998). This will accordingly form part of a waste management license application process contemplated in section 45 read with section 20(b) of this Act.

In the case of Nyezenhle Holdings (Pty) Ltd there is no storage of general waste in lagoons. There is no recycling that falls within the stipulated threshold. There is no treatment of waste on site which is in excess of 10 tons or 500 kg of hazardous waste per day. The treatment is that of effluent and waste water as per the treatment plant outlined below, which is also below the regulated threshold (out). The Farm is also not disposing anything in excess of 25 tons for leveling or building or disposal of general waste to land covering an area of more than 50 square metres. There is also no foreseeable decommissioning that is likely to happen. Category A is therefore not applicable in this instance.

#### **(ii) Category B**

Scoping and EIA must be applied to an application if the authorization applied for is in respect of an activity listed under Category B in schedule 1 of the NEMWA (59 of 2008).

As highlighted above, storage of hazardous waste, re use, recycling and recovery of waste, treatment of waste excluding the treatment of effluent and waste water, disposal of waste on land is not within the threshold of this project. This Category is also not applicable in this project.

### **(iii) Category c**

In terms of this Category a person who wishes to conduct a waste management activity listed herein has to comply with the requirements or standards as determined by the Minister in terms of the Waste Act.

The storage contemplated under this Category is quite a significant one. This includes the storage of general waste at a facility that has the capacity to store in excess of 100 cubic metres at any one time. In terms of the storage of hazardous waste, the capacity becomes 80 cubic metres. The storage of waste tyres in a storage area exceeding 500 cubic metres.

The recycling or recovery of waste stipulated here is not applicable to Sterkfontein Farm i.e. scrapping of motor vehicles and the extraction and recovery or flaring of landfill gas.

## **6. THE WASTE TYPES / STREAMS ON SITE INCLUDE THE FOLLOWING:**

### **6.1. General waste**

- Clean building rubble (e.g.used oil
- Garden refuse.
- Domestic waste.
- Plastic.
- Timber.
- Rubber.
- Glass.
- Paper and cardboard.
- Office waste.

### **6.2. Hazardous waste**

- Used batteries and some degreasers (contain acids and alkali's)
- Waste containing oil.
- Used grease.
- Left over paints, solvents.
- Sewerage sludge.
- Redundant chemicals
- Lead, nickel, cadmium (heavy metals) found in electrical/electronic appliances.
- Mercury found in fluorescent tubes and other electrical appliances.

- Pesticides, insecticides, fertilizers, herbicides and their containers.

#### 6.2.1. Cattle manure

##### 6.2.1.1. Stock piling of cattle manure

Extensive stockpiling of cattle manure is not permitted, and must be removed as soon as possible, and transported off site in covered trucks by contractor who handles such manure. In this instance the cattle manure will be removed by the contractor whom the applicant intends concluding a contract with. The generated cattle manure is not expected to exceed 60m<sup>3</sup> - 70m<sup>3</sup> at any given time before disposal. The cattle manure is removed from site using trucks and is used for manure.

#### 6.2.2. Mortalities.

The main method of disposing carcasses is the contracting of the accredited Company. The applicant will decide in due course which Company to use.

However, the other method of disposal will be disposal to the nearest accredited landfill site. During the operational phase waste must be appropriately stored on site and transported to an appropriate and registered landfill site on weekly basis. In the case of contagious carcasses these must be disposed as per the Vet instructions. Non-contagious carcasses must be removed off site as soon as possible in closed containers. Non-contagious mortalities can be used as by products, including animal feed.

The disposal frequency of carcasses by Nyezenhle Holdings (Pty) Ltd will depend dependent on the cause of death to be determined by the Veterinarian as may be appropriate. If the carcass cannot be immediately disposed for what every reason, it is recommended that it be kept in the separate refrigerated area.

However, if there is a significant number of deaths, that is normally a sign of a disease, and those carcasses must be sent by Nyezenhle Holdings (Pty) Ltd to the laboratory for diagnosis or removed on the instruction of the State Veterinarian.

## **7. PROJECT ROLL OUT PHASES**

### **7.1. Construction Phase**

The main focus of the plan is the operational stage, however waste will also be managed during the construction phase in line with legislation.

All waste/rubble from the construction phase will be stored in wind and scavenger proof containers. Such waste will be transported to and disposed of at the nearest

Landfill Site. The appropriate area and interval for waste disposal will be agreed to between Engineer, Contractor and ECO to ensure that waste disposal does not culminate in any environmental pollution. As part of recommendation and requirement for responsible waste disposal, any hazardous waste including contaminated soil will be stored in appropriate containers and disposed of at a hazardous waste approved disposal site as soon as possible.

Activity	Aspect	Impacts	Objectives	Mitigation Measures	Responsibilities
Health and Safety: Potential dangerous working conditions	Health and Safety	Potential safety risk to employees	To be in compliance to the relevant Occupational Health and Safety Legislation	<input type="checkbox"/> Equip all employees and/or contractors working on the site with the necessary personal protective equipment. <input type="checkbox"/> Implement safety induction. <input type="checkbox"/> Training on relevant machinery. All safety signs as required by the Occupational Health and Safety Act must be visible on site. <input type="checkbox"/> Ensure that all employees adhere to the Occupational Health and Safety Act. <input type="checkbox"/> A First Aid kit must be provided within the site. This must be fully equipped at all times, site workers must also be trained on basic first aid skills.	Contractor/ Site Manager / Safety Officer
Waste Management (storage, removal and disposal of waste)	Construction waste, domestic waste	Land pollution, bad odours. decreased aesthetic	To ensure that waste is correctly stored and disposed of,	General waste <input type="checkbox"/> Sufficient waste bins must be provided at the construction site for	Contractor/ Site Manager / ECO

		integrity of the site.	decreasing the visual impact during the construction and post construction period.	<p>waste separation, disposal and for recycling purposes.</p> <p><input type="checkbox"/> Littering by the employees of the Contractor must not be allowed under any circumstances.</p> <p>The Site Manger must monitor the neatness of the work sites.</p> <p><input type="checkbox"/> All waste must be removed from the site and transported to the landfill site.</p>	
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## 7.2. Operational Phase

General Waste produced during the operational phase must be disposed of at the Landfill site. An arrangement will be made with the accredited Companies and nearby farmers for the disposal of cattle manure for their use in their farms for crop production. The arrangement will be to have the cattle manure collected as soon as possible, so that it is not stored on site for a prolonged period or in volumes that will constitute storage. For the duration that the cattle manure is stored on site, it must be aired so as to dry it to prevent it from creating odour. It must then be placed in storage bags until it is collected/delivered. This method also reduces breeding of flies.

Furthermore, Companies that specialize in cattle manure removal can be contracted to handle and dispose carcasses. The disposal method proposed is geared towards ensuring that there is removal on site of manure and carcasses as soon as possible. This will also help in the control of odour and general hygiene and site upkeep.

Activity	Aspect	Impacts	Objectives	Mitigation Measures	Responsibilities
Management of condemned carcasses or general waste or solid waste	Waste Management	Bad smelling odours, Health risk, pollution	To ensure that waste is correctly stored and disposed of, decreasing	<input type="checkbox"/> Every facility must undergo a visual inspection at every shift change to check for	Nyezenhle Holdings (Pty) Ltd

			<p>the visual impact during operation of the facilities.</p>	<p>possible abnormalities, and a report of the conditions generated and filed.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Cattle manure must be stored under a roof to prevent it from mixing with the storm water or it must be used or sold as fertilizer directly after cleaning.</li> <li><input type="checkbox"/> The manure must then be conveyed to a manure house or container and packaged; the manure must be removed from the site within three days. The manure will be collected by the contractor or sold to end users such as crop farmers and nurseries.</li> <li><input type="checkbox"/> The cleaning of the feedlot pens must be done at least weekly preferable when the manure is moist, but not</li> </ul>	
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				<p>wet (it is easy to remove it when it's moist).</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The removal of manure must occur every week or earlier to prevent accumulation on site, keeping the manure from potentially polluting the ground surface.</li> <li><input type="checkbox"/> General waste must be collected on site and be disposed of at the landfill site.</li> </ul> <p>Litter</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Maintain good feedlot conditions by keeping the dung dry throughout the production cycle. The automated humidity control systems within the feedlots facilities must be monitored for efficiency all the time.</li> <li><input type="checkbox"/> Cattle manure must be preserved in dry area,</li> </ul>	
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				<p>covered by sheeting or within a shed to protect it from rain and leaching in order to prevent noxious odours and ammonia from forming.</p> <p>Solid waste</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Cattle manure must be removed from the facility on weekly basis.</li><li><input type="checkbox"/> Carcasses must be removed from the feedlots facilities on a daily basis or as soon as they are noticed.</li><li><input type="checkbox"/> A mortality register must be kept.</li><li><input type="checkbox"/> Mortalities must be stored in refrigerated container until they are removed for disposal. In case of suspected diseases they need to be removed from site and disposed of</li></ul>	
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				<p>according to the State Vet's instructions.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Management options for feedlot mortalities may include: <ul style="list-style-type: none"> <li>▪ Composting</li> <li>▪ Burial</li> <li>▪ Incineration</li> <li>▪ Rendering (process of converting animal carcasses to pathogen free useful byproducts such as feed protein)</li> </ul> </li> <li><input type="checkbox"/> Flies, rodents and other vermin must be strictly controlled. .</li> <li><input type="checkbox"/> Workers must be instructed not to litter on site.</li> <li><input type="checkbox"/> General and household waste must be properly disposed on weekly basis at the Landfill</li> </ul>	
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				<p>Site</p> <p>Mortalities</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> There must be temporary storage of mortalities.</li> <li><input type="checkbox"/> The temporary storage area for mortalities must be refrigerated. This area must have access control, preventing the unlawful removal of mortalities.</li> <li><input type="checkbox"/> In the event of temporary storage, mortalities must be stored in refrigerated area prior to disposal.</li> </ul> <p>Disposal of mortalities</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mortalities must be disposed of as soon as possible.</li> </ul> <p>Mass disposal of mortalities</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> In the event of disease outbreak <ul style="list-style-type: none"> <li>o Notify the State Veterinarian</li> <li>o The State Veterinarian must visit the</li> </ul> </li> </ul>	
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				<p>site.</p> <ul style="list-style-type: none"> <li>o The State Veterinarian will place the property, or the specific site or facility that is infected, under quarantine.</li> <li>o Depending on the disease and severity, the cattle can be slaughtered on site or transported to an abattoir with a Red Cross permit.</li> </ul> <p>Effluent</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Effluent – the main liquid waste from the cattle feedlots is the effluent from stormwater run-off.</li> <li><input type="checkbox"/> Effluent must be channeled to a holding pond.</li> <li><input type="checkbox"/> Holding pond must be installed further than 100m on either side of any watercourse.</li> </ul>	
Reduce odour level	Odour	Bad odour from cattle manure	To minimise the impact of odour from cattle	Odour, dust and flies can be a nuisance and can create an unpleasant	Nyezenhle Holdings (Pty) Ltd

			<p>manure by implementation of the plan.</p>	<p>workplace and affect cattle performance and staff welfare.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The feedlot facilities must be well ventilated to avoid odours. The automated ventilation system to be used must be checked for effectiveness on a daily basis.</li> <li><input type="checkbox"/> Cattle waste must be maintained at optimal moisture content to control odours and simultaneously minimize dust levels.</li> <li><input type="checkbox"/> Smells and odours from feedlots facilities must be highly controlled by removing cattle dung from the facilities.</li> <li><input type="checkbox"/> Avoid offensive smells by ensuring good</li> </ul>	
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				<p>health and hygiene facilities.</p> <p><input type="checkbox"/> Facility designs for manure stockpiling:</p> <ul style="list-style-type: none"> <li>• Durable impermeable base</li> <li>• Good site drainage</li> <li>• Unsuitable moisture content can lead to spontaneous combustion.</li> </ul>	
Health and safety	Human health	Health risk to the site staff and community surrounding due to activities on site	Manage and mitigate health impacts on site and to surrounding community	<p><input type="checkbox"/> A detailed bio-security protocol / programme must be compiled and implemented by the Applicant.</p> <p><input type="checkbox"/> Natural buffer zones around feedlots must be maintained.</p> <p><input type="checkbox"/> Cattle must be vaccinated and feedlots facilities cleaned on daily basis.</p>	Nyezenhle Holdings (Pty) Ltd

				<input type="checkbox"/> Restricted admission (e.g. functional fence with gates that can be locked, access control, restricting visitors to the minimum). <input type="checkbox"/> In case of an outbreak or suspected diseases - there must be Transit facilities (e.g. at the site office) where private clothes and foot wear are exchanged for farm clothes and foot wear to reduce the risk of diseases being carried onto the farm. <input type="checkbox"/> Proper sanitary facilities must be provided for staff, i.e. wash rooms with showering facilities. Distinction must be made between the “private clothes area” and the “site clothes area”. <input type="checkbox"/> Vehicles entering the	
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				<p>site must be disinfected. If not, they must be left at a safe parking area at a distance away from the feedlots.</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Workers must be adequately trained to follow all safety procedures and wear protective equipment provided.</li><li><input type="checkbox"/> Water drinking troughs for cattle must be flushed and cleaned on a daily basis, i.e. daily to at least three times per week to provide protection against microbial contamination and the build-up of bio-film. Feedlot facilities must be ventilated</li><li><input type="checkbox"/> Carcasses must be removed as soon as they are observed, on daily basis.</li></ul>	
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				<p>A mortality register must be kept.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Mortalities must be stored in a refrigerated area. Closable bio-hazard bins at an appropriate and controlled holding facility can also be used as may be necessary until they are removed from site and disposed of at the landfill site</li> <li><input type="checkbox"/> Flies and other vermin must be strictly controlled.</li> <li><input type="checkbox"/> A Mortality Disposal Procedure (MDP) must be implemented.</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> No unauthorised firearms or weapons of any kind must be permitted onsite.</li> <li><input type="checkbox"/> Independent site security must be provided by the Proponent on site during</li> </ul>	
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				hours of darkness, and if possible during the day at temporary access points <input type="checkbox"/> 24 hour security must be appointed by the Proponent.	

### Decommissioning Phase

Activity	Aspect	Impact	Objective	Mitigation Measures	Responsibilities
Disposal and storage of waste.	Incorrect disposal of general waste (including domestic waste and building rubble) generated during the operational phase.	Generated by employees and contractors, potentially hazardous waste such as odours or contaminated soil removed due to leaking runoff water.	Maintain waste management system.	where possible <input type="checkbox"/> General waste must be collected by the Municipality and be disposed at the Landfill site. <input type="checkbox"/> All Waste Storage areas including areas where potentially hazardous waste is stored must be adequately fenced in and secured to prevent any access of public members and unauthorized people.	Nyezenhle Holdings (Pty) Ltd

### 8. EFFLUENT AND WASTE WATER WITHIN THE FACILITY

Effluent in this context will be mainly waste water and stormwater run-off. The facility falls below the threshold contemplated by any of the categories i.e. A, B, and C of the scheduled activities of the Waste Act.

## **9. SEWERAGE**

Sewerage viewed and defined as the type of suspension of wastes which can be a liquid or solid. Sewerage will also contain excreta of humans and animals.

In this regard the sewerage generated is below the threshold. In this instance the existing septic tanks will be utilised. It is not in the plan that new ablutions will be erected.

## **10. SOLID WASTE**

During construction all waste will be disposed at the Landfill site as directed by the Environmental Control Officer (ECO).

Once the construction is completed the solid waste must be collected by the Municipality once a week if such service is available, alternatively Nyezenhle Holdings (Pty) Ltd must transport it to the landfill site or outsource the service to the service provider.

Solid waste generated on site must be kept in two 240 litres wheelie bins. The waste generated will be mainly from the Farm house and associated existing buildings on site. The solid waste will be disposed weekly at the nearest Landfill site.

## **11. CONCLUSION**

According to the National Environmental Management Act, 1998 everyone must take reasonable measures to ensure that they do not pollute the environment. In this regard the reasonable measures must include informing and educating employees about environmental risks of waste management and instill a sense of environmental consciousness.

It is therefore, crucial that all mitigation measures are adopted and effected to the letter during all phases of this development. It must also be kept in mind that the Waste Management Plan is a live document, that need adjustment as the need arise, as long as such changes are in the interest of the environment.

### **1. REFERENCES:**

1. National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).
2. National Environmental Management Act, 1998 (Act No. 107 of 1998).

3. General Notice 779 of 2012 - National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008): List of waste management activities that have, or are likely to have, a detrimental effect on the environment.
4. National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), Amendments to Environmental Impact Assessment Regulations Listing Notice 1 of 2010 (Government Notice No. R 922).
5. National Norms and Standards for the storage of Waste
6. Waste Management License Application process