

UPGRADE AND OPERATIONS OF REHO ABATTOIR, REHOBOTH

ENVIRONMENTAL ASSESSMENT SCOPING REPORT




Assessed by:



Assessed for:

**Reho Meat Processors (Pty)
Ltd**

December 2022

Project:	UPGRADE AND OPERATIONS OF REHO ABATTOIR, REHOBOTH: ENVIRONMENTAL ASSESSMENT SCOPING REPORT	
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Report Approval	 André Faul Conservation Ecologist	

I, Jacobus Johannes Smit, acting as a representative of Reho Meat Processors (Pty) Ltd, hereby confirm that the project description contained in this report is a true reflection of the information which the Proponent provided to Geo Pollution Technologies. All material information in the possession of the Proponent that reasonably has or may have the potential of influencing any decision or the objectivity of this assessment is fairly represented in this report and the report is hereby approved.

Signed at ___Rehoboth_____ on the 10th_ day of _February 2023.



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Reho Meat Processors (Pty) Ltd

Business Registration/ID Number

EXECUTIVE SUMMARY

Reho Meat Processors (Pty) Ltd (the Proponent) requested Geo Pollution Technologies (Pty) Ltd to conduct an environmental scoping assessment for the proposed upgrade and continued operations of an existing livestock abattoir on Portion 57 of Farm Rehoboth Dorpsgrond No. 302, about 1.3 km south of Rehoboth. The Proponent intends upgrade and operate the abattoir facility for the slaughtering of specifically sheep and cattle for local and export markets. All livestock are sourced from Namibian farms. The facility is also equipped to partially portion or debone carcasses, mainly for the export market. After refurbishment, the abattoir will have the capacity to slaughter 100 heads of cattle or 250 heads of sheep per day.

The environmental assessment is conducted to determine all environmental, safety, health and socio-economic impacts associated with the upgrade and operations of the facility. Relevant environmental data has been compiled by making use of secondary data and a reconnaissance site visit. Potential environmental impacts and associated social impacts were identified and are addressed in this report. Enhancement measures for positive impacts, and preventative and mitigation measures for negative impacts, are provided. It is recommended that environmental performance be monitored regularly to ensure regulatory compliance and that corrective measures be taken if necessary.

The upgrade of the abattoir will see a vast improvement in the status quo of the facility. Apart from increasing the slaughtering capacity of the facility, improvements will also realise in terms facility aesthetics, improved animal handling conditions (international best practice), improved working conditions, and positive socio-economic spinoffs for the town and Namibia as a whole. Such positive socio-economic impacts relate to increased employment, acquisition of services from local and National businesses, contractors and vendors for the supply of goods and services, growth in the Namibian livestock producers industry, and revenue generation through the local distribution and export of meat products and related goods from Namibia.

Due to the nature and location of the facility, negative impacts are expected to be localised. The major concerns related to the upgrade and operations of the facility are mostly associated with worker health and safety, noise, pollution of the environment, increased traffic and the possibility of fire. These impacts will however be prevented or mitigated by implementation of, and adherence to, various legislative requirements and industry accepted standards. By appointing local contractors and employees and implementing educational programs the positive socio-economic impacts can be maximised while mitigating any negative impacts.

The environmental management plan (EMP) included in section 9 of this document should be used as an on-site reference document during all phases of the facility. Monitoring of, and reporting on, environmental parameters highlighted in the EMP, must be performed in accordance with environmental clearance certificate (ECC) conditions. Parties responsible for transgression of the EMP should be held responsible for any rehabilitation or corrective action that may need to be undertaken. Food safety management based on the hazard analysis and critical control point (HACCP) principles and a health, safety, environment and quality policy, or similar, should be used in conjunction with the EMP. Operators and responsible personnel must be taught the relevant contents of these documents. Town Council or national regulations and guidelines must be adhered to and monitored regularly as outlined in the EMP.

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LIST OF ABBREVIATIONS

°C	Degrees Celsius
AIDS	Acquired Immune Deficiency Syndrome
DEA	Directorate of Environmental Affairs
DWA	Department of Water Affairs
EA	Environmental Assessment
ECC	Environmental clearance certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EMS	Environmental Management System
GDP	Gross Domestic Product
GPT	Geo Pollution Technologies
HIV	Human Immunodeficiency Virus
HSEQ	A Health, Safety, Environment and Quality Policy
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
kV	Kilovolt
kW	Kilowatt
m	Meter
m³	Cubic meter
MEFT	Ministry of Environment, Forestry and Tourism
MSDS	Material Safety Data Sheet
MWth	Megawatt Thermal
NO_x	Nitrogen Oxides
O₂	Oxygen
PM	Particulate Matter
PPE	Personal Protective Equipment
SANS	South African National Standards
SO₂	Sulfur Dioxide
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
SS	Suspended Solids

GLOSSARY OF TERMS

Competent Authority - means a body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.

Construction - means the building, erection or modification of a facility, structure or infrastructure that is necessary for the undertaking of an activity, including the modification, alteration, upgrading or decommissioning of such facility, structure or infrastructure.

Cumulative Impacts - in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Effluent - Liquid waste originating from domestic, industrial, agricultural or mining activities that has been treated in a wastewater treatment facility and released into the environment in a dam, an evaporation pond, an aquifer, a river, the sea or onto the surface of the ground.

Environment - As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".

Environmental Clearance Certificate (ECC) - certificate (and its associated conditions) issued in terms of the environmental management act, authorising a listed activity to be undertaken.

Environmental Management Plan (EMP) - A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties of the project.

Environmental Management System (EMS) - An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, PR productivity and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases efficiency and focuses on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies usually become more competitive.

Groundwater - Water - (a) occurring naturally below the surface of the ground; or
(b) pumped, diverted or released into a cavity for storage underground.

Hazard - Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.

Mitigate - The implementation of practical measures to reduce adverse impacts.

Proponent (Applicant) - Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Slaughterhouse Waste – inedible parts of animals derived from the slaughtering process inclusive of paunch (intestinal) contents, trimmings, pieces of flesh or fat falling to the floor, pieces of skin, etc.

Temple Grandin – a scientist and an activist for the human treatment of animals who designed livestock handling facilities to reduce animal stress during handling which are widely implemented at abattoirs.

1 INTRODUCTION AND BACKGROUND

Geo Pollution Technologies (Pty) Ltd was appointed by Reho Meat Processors (Pty) Ltd (the Proponent) to draft an environmental scoping assessment and environmental management plan for the proposed upgrade and continued operations of a livestock abattoir on Portion 57 of Farm Rehoboth Dorpsgrond 302 (Figure 2-1). The Proponent intends to operate the abattoir for the receipt and slaughtering of specifically sheep and cattle for local and export markets.

In general, construction and operations of the facility will involve:

- ◆ Phased upgrade and construction of selected infrastructure to develop the abattoir into an export ready facility, meeting all the Namibian and international export market requirements for such facilities.
- ◆ Receipt of livestock to be temporarily kept in lairages and provided with water till the slaughtering commence.
- ◆ Slaughtering of livestock according to accepted standards and procedures of export markets.
- ◆ Portioning, deboning and packaging of specifically cattle for export markets.
- ◆ Refrigeration of all meat and carcasses.
- ◆ Dispatching of meat and carcasses destined for various local and export markets.

A risk assessment was undertaken to determine the potential impact of the construction, operational and possible decommissioning phases associated with the project on the environment. The environment being defined in the Environmental Assessment Policy and Environmental Management Act as “land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values”.

The environmental assessment was conducted to apply for an environmental clearance certificate in compliance with Namibia’s Environmental Management Act (Act No 7 of 2007).

Project Justification – Reho Abattoir is an existing abattoir that has been operational for many years. The upgrade of the abattoir will significantly improve the facility in respect of aesthetics, animal welfare, working conditions, profitability and socio-economic contributions to the Town and Namibia as a whole. Such positive socio-economic impacts relate to increased employment, acquisition of services from local and National businesses, contractors and vendors for the supply of goods and services, growth in the Namibian livestock producers industry, and revenue generation through the local distribution and export of meat products and related goods from Namibia. Upgrading of the facility will not only increase throughput, but also allow for true value addition to Namibian produced goods and the sale of such meat products to international markets. Thus ensuring maximum revenue generation from Namibian resources. This will further contribute towards sustaining of the local livestock farming industry as well as contribution to local food security and income generation from foreign sources. Exports contribute towards a positive trade balance for Namibia.

In summary, potential benefits that may realise from the upgrade and operations of the facility include:

- ◆ A greatly improved facility adhering to accepted and prescribed industry standards where livestock is handled and slaughtered according to internationally accepted methods.
- ◆ Support for the local and Namibian construction and services supply industry during the planning and construction (upgrade) phases.
- ◆ Increased employment opportunities during operations as well as support for services supply industries at local and national level.
- ◆ Revenue generation, payment of taxes and levies, economic growth, etc.
- ◆ Increased spending power as a result of the earning of market related salaries and wages.
- ◆ Education and skills transfer as part of employment programmes.
- ◆ Diversification of economic activity through the acquisition of services and goods as well as potential inducement of additional investments and business opportunities in the agricultural and services supply sectors.

2 SCOPE

The scope of the environmental assessment is to:

1. Determine the potential environmental impacts emanating from the proposed upgrade and operational activities.
2. Identify a range of management actions which could mitigate the potential adverse impacts to acceptable levels.
3. Comply with Namibia's Environmental Management Act (2007).
4. Provide sufficient information to the Ministry of Environment, Forestry and Tourism and related authorities to make an informed decision regarding the proposed operations, construction activities and possible decommissioning of the facility.

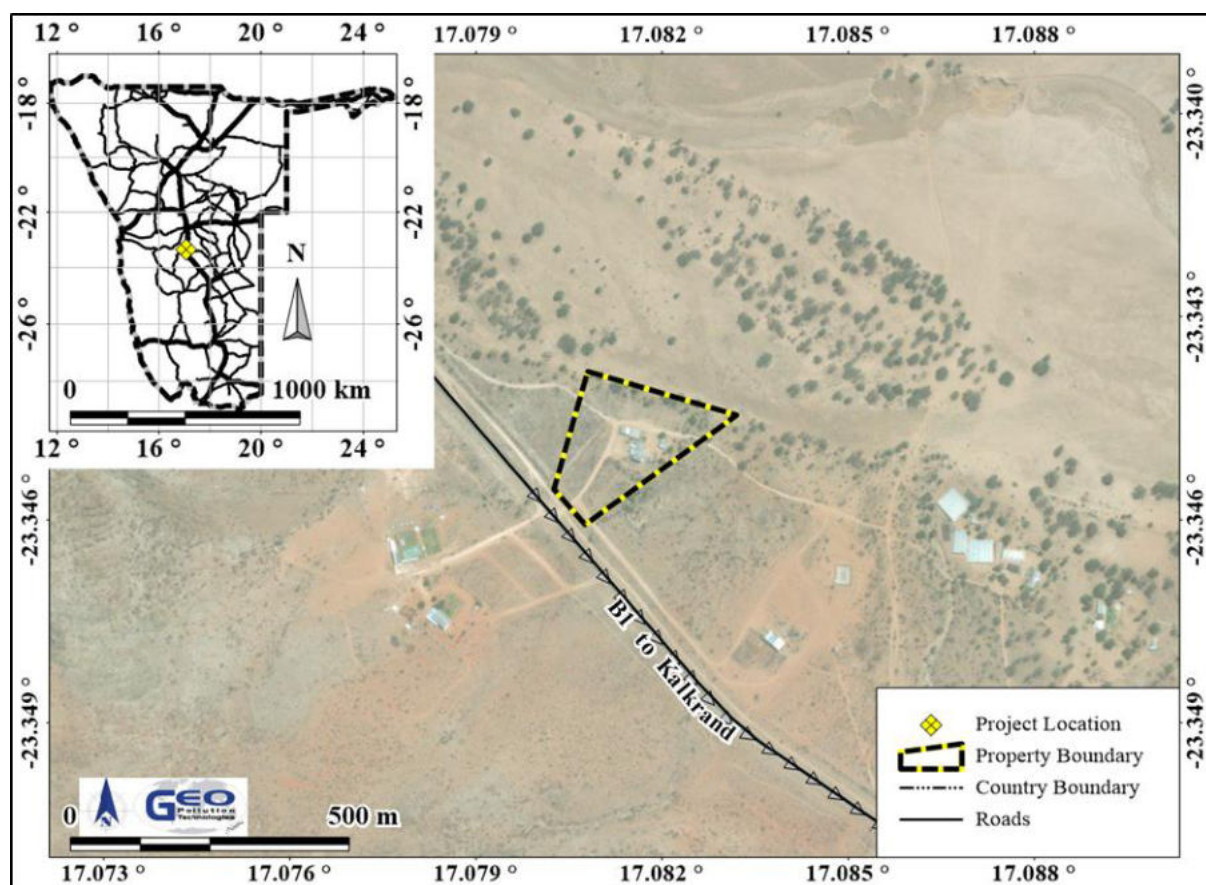


Figure 2-1 Project location

3 METHODOLOGY

The following methods were used to investigate the potential impacts on the social and natural environment due to the upgrade and operations of the facility:

1. Baseline information about the site and its surroundings was obtained from existing secondary information as well as from primary information obtained during a reconnaissance site visit.
2. As part of the scoping process to determine potential environmental impacts, interested and affected parties (IAPs) were consulted about their views, comments and opinions and these are put forward in this report.
3. Based on gathered information and public and stakeholder consultation, an assessment of potential impacts was conducted and a management plan prepared.

4 FACILITY OPERATIONS AND RELATED ACTIVITIES

The facility is an existing abattoir that has been in operation for many years. It has however recently come under new ownership, who now intends to upgrade the facility to increase throughput and to enable export of meat to international markets.

Once upgraded, the entire facility will be divided into a “green line” and “red line” area. The green line area is operational areas where cleanliness is paramount to prevent contamination of meat products, while the red line is operational areas where offal and wastes are handled in order to keep it separate from the green line. During slaughtering events, employees are not allowed to move uncontrolled between green line and red line areas and each area has its own ablution facilities for workers to use.

The following sections provide a brief overview of the existing and planned upgrades, followed by the proposed operational activities at the facility.

4.1 EXISTING INFRASTRUCTURE

The existing facility has the capacity to slaughter 50 heads of cattle or 250 heads of sheep per day. The main existing infrastructure comprise of the following (Figure 4-1):

- ◆ A lairage (pens) with capacity for 260 sheep
- ◆ The slaughtering line consisting of a stun area, bleeding area and dressing area
- ◆ A condemned meat area
- ◆ A chiller with capacity for 320 small stock or 50 cattle carcasses
- ◆ A hides store
- ◆ A effluent and paunch material screen/sump
- ◆ An effluent sump connected to the municipal sewerage network
- ◆ An old house and outbuilding
- ◆ Water tank
- ◆ Security fence

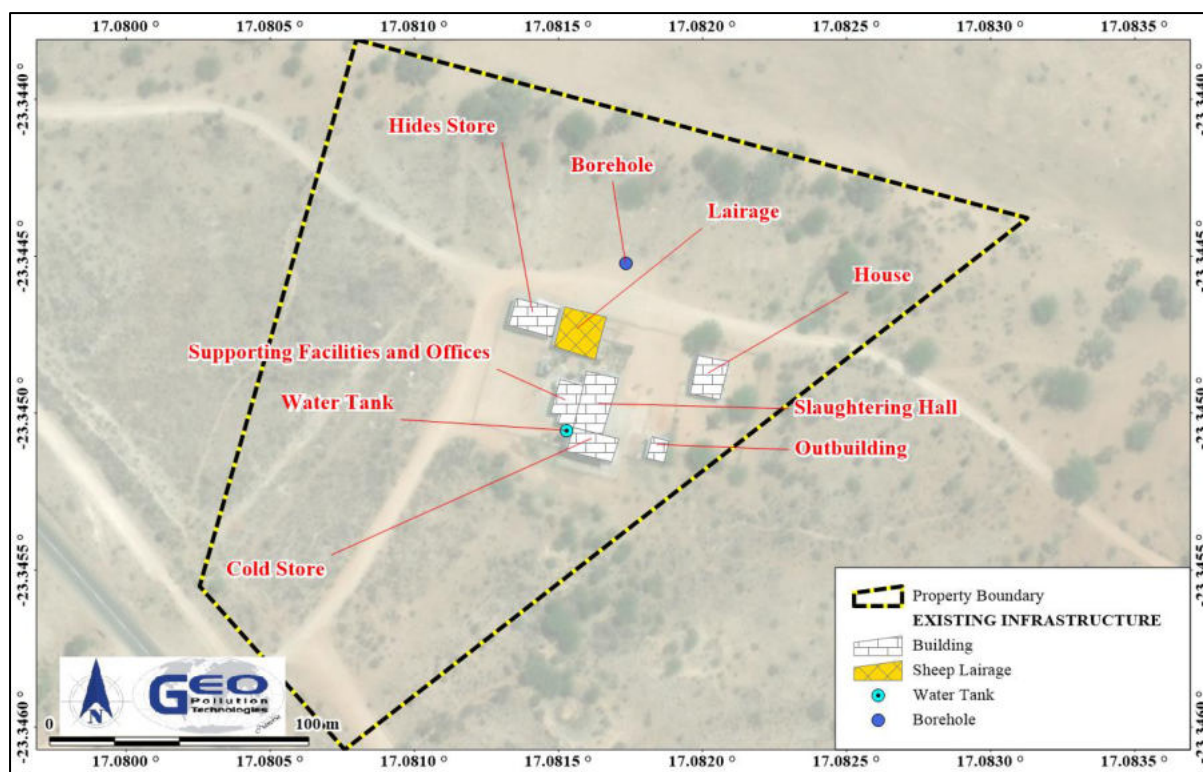


Figure 4-1 Existing infrastructure

4.2 PLANNED UPGRADES AND INFRASTRUCTURE

Significant upgrades are required to ultimately have an export ready facility with the capacity to slaughter 100 cattle or 250 sheep per day. The following is a list of all planned upgrades at the facility (Figure 4-2).

- ◆ Seven new cattle holdings pens for the cattle lairage, which will collectively keep 100 cattle in five pens, while two pens will be used for isolation and sick animals respectively.
- ◆ A white offal handling, processing and packing area with a white offal freezer.
- ◆ A red offal handling, processing and packing area with a red offal and heads freezer.
- ◆ Five additional chillers with a capacity of 100 cattle sides (halves) each.
- ◆ A cattle quartering area and an additional chiller with a capacity for 200 cattle quarters.
- ◆ A de-boning and cutting area for cattle.
- ◆ Vacuum and carton packaging areas for deboned meat.
- ◆ Two blast freezers for packed de-boned meat.
- ◆ A palletizing area where packed de-boned meat is stacked on pallets.
- ◆ A carton freezer and carton chiller for packed de-boned meat
- ◆ A bones processing area and bones freezer.
- ◆ Various support infrastructure components such as offices (slaughter floor, veterinarian, meat board, etc.), storage areas, chemical stores, canteens, locker rooms, laundry, security and staff entrances, dispatch areas, etc.).
- ◆ A blood collection sump.
- ◆ Effluent pre-treatment infrastructure.
- ◆ Groundwater abstraction point from a borehole to augment water supply.
- ◆ Two enclosed water reservoirs of 200 m³ each with associated potable water treatment and disinfection.
- ◆ A new access road to comply with the requirements of Roads Authority (Figure 4-3).
- ◆ A new re-routed powerline and transformer for electricity supply (Figure 4-3).
- ◆ Standby generators of 500 kVA each.
- ◆ Light fuel oil (LFO) fired hot water boilers.
- ◆ A consumer fuel installation to supply LFO to the boilers.
- ◆ Ammonia refrigeration plant.
- ◆ An industrial ventilation system for buildings.
- ◆ A fire protection system.
- ◆ Security measures inclusive of closed-circuit television.
- ◆ A solid waste storage and handling area.
- ◆ A truck wash bay.
- ◆ In future a photovoltaic solar plant is also considered (not included in this assessment).

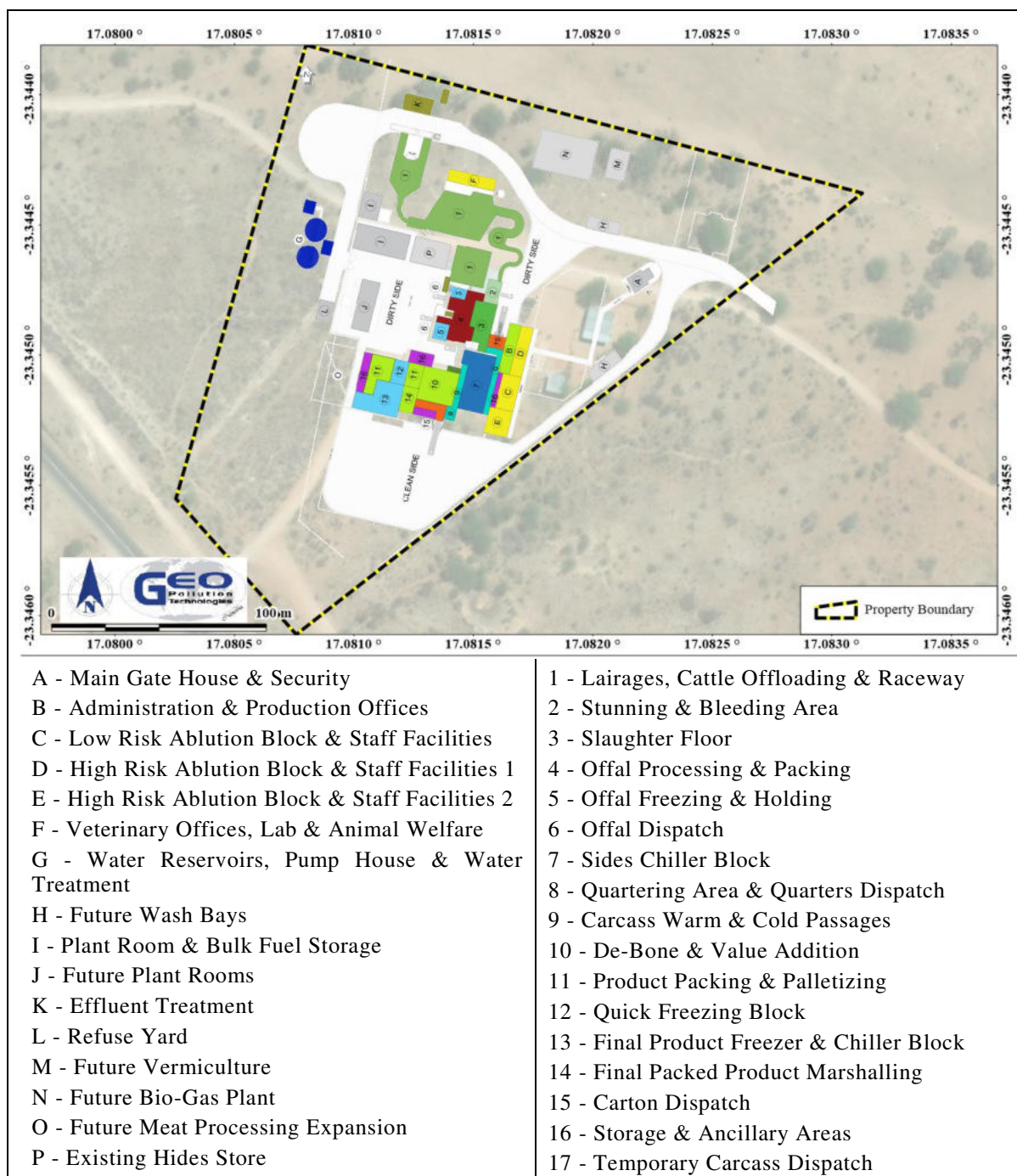


Figure 4-2 Proposed site layout (Burmeister and Partners Consulting Engineers 2022)

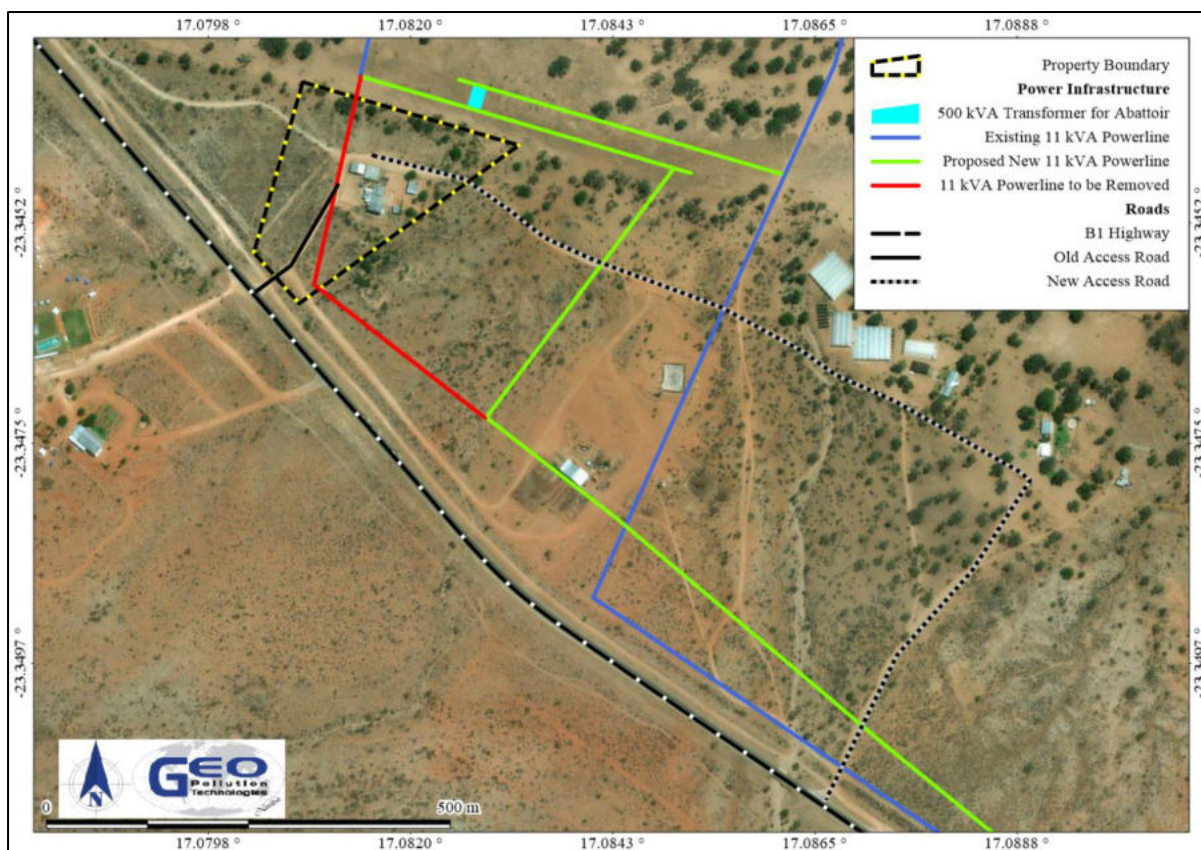


Figure 4-3 Existing and proposed new linear infrastructure

4.3 LIVESTOCK DELIVERY

Vehicles delivering live sheep or cattle enter at a security gate where their permits will be checked. Livestock will then be offloaded and kept in the underroof lairages. The lairages will have concrete floors and roof structures for shade. They will be provided with water, but only be provided with feed when delays occur. Veterinary facilities, isolation pens and sick pens will be located at the lairages to deal with any health issues or diseased animals.

All empty trucks will go through a compulsory washing and sanitation process before they will be allowed to depart from the premises. Regular cleaning of the lairages will also take place. To save water, dry cleaning processes will first be used to remove the bulk of the animal waste. Washing will then be performed with water and cleaning agents (sterilising agents) at a dedicated wash bay.



Photo 4-1 Existing sheep lairage

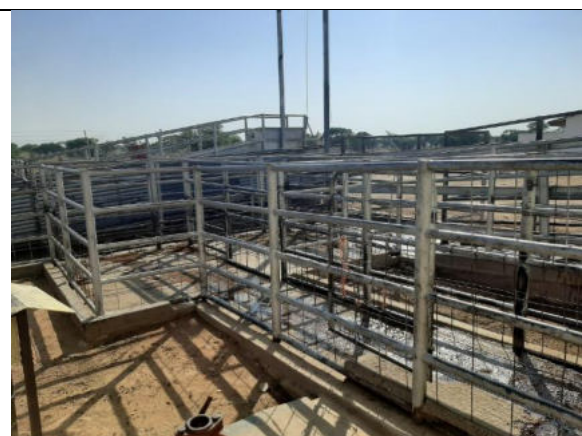


Photo 4-2 Existing sheep holding and handling infrastructure

4.4 SLAUGHTERING AND PROCESSING

When slaughtering commence, the animals are led into a “raceway” or “chute” leading to the slaughter room situated inside the main building. The raceway is designed according to Temple Grandin designs, specifically aimed at reducing stress in livestock. The main design parameter being a winding raceway design as seen in Figure 4-4.

Once in the slaughterhouse, they are stunned according to international best practices and Halaal certification will be obtained. The carcass proceeds along the processing line, passing by various operator stations, each of which performs specific slaughtering actions until the entire animal is skinned and gutted. The carcass and offal are inspected by veterinarians. If it passes inspection, the carcasses are placed in chiller rooms where maturing will occur according to European Union regulations. The offal and skins passes into the red line area for further processing. If any animal is found to be unfit for human consumption by the veterinarian, it is removed from the processing line for examination, and later on disposal.

Carcasses may be prepared in three ways:

- ◆ Sheep are dispatched as whole carcasses, unpackaged (typically for local markets),
- ◆ Cattle that are quartered (typically for local markets),
- ◆ Cattle portioned, deboned and vacuum sealed and packaged into cartons (typically for export markets).

All carcasses, quarters and packaged meats will be stored in cold storage units from where they will be loaded onto trucks at dispatch areas.

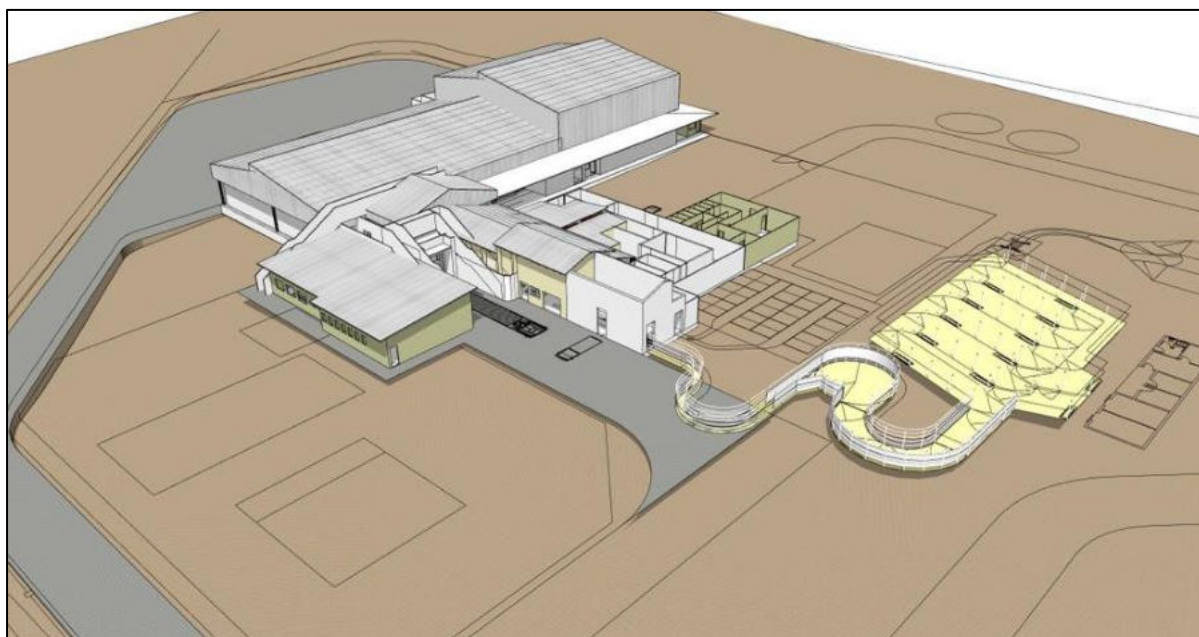


Figure 4-4 Temple Grandin raceway design to reduce animal stress (Burmeister and Partners Consulting Engineers 2022)



Photo 4-3 Existing slaughtering line (prior to revamping)

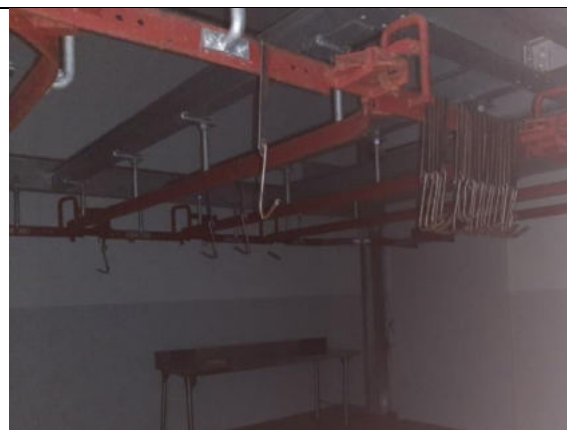


Photo 4-4 Existing cold room (prior to revamping)

4.5 BY-PRODUCT HANDLING

The main by-products are offal, bones from the deboning process, horns and skins. All offal undergo basic cleaning in the red line area, packaged and kept in cold rooms prior to being loaded onto trucks for dispatch. All skins are salted and the skins, bones and horns are sold. Paunch contents and other slaughterhouse wastes are also collected by a third party who processes it into compost.



Photo 4-5 Hides store



Photo 4-6 Salted hides

4.6 WATER AND ELECTRICITY SUPPLY

Two sources of water will be used on site. The first is potable water as supplied by the Rehoboth Town Council and the second will be pumped from a borehole drilled immediately north of the slaughtering facility. Both sources of water will undergo treatment to ensure the quality is adequate for use in the slaughtering facility and will be used for cleaning of all slaughtering and meat handling areas, as well as for domestic, livestock watering, gardening and general cleaning purposes. To ensure water supply continuity two 200 m³ enclosed water reservoirs will be installed on site.

Electricity will be supplied by the Town Council via an 11 kV powerline and a 500 kVA transformer. The Proponent may consider to augment electricity supply by constructing a photovoltaic plant in future. Depending on the size of such a plant, it may require updating of the environmental assessment to include its construction and operations.



Photo 4-7 Borehole



Photo 4-8 Existing water storage

4.7 EFFLUENT TREATMENT AND WASTE DISPOSAL

Various waste streams result from daily operations. A summary of the different waste types and disposal methods are presented in Table 4-1. Current effluent handling on site involves primary treatment (screening of solids) and subsequent pumping of effluent to the Town Council's effluent treatment ponds. The Proponent intends to upgrade the existing system to allow for the handling of the additional livestock to be slaughtered and for improved separation of fat, solids, blood and paunch contents from the effluent prior to its disposal. Figure 4-5 indicates the various effluent streams and steps in pre-treatment of such effluent prior to being disposal to the Town Council's effluent ponds. Domestic wastewater will be kept separate from the lairages and slaughterhouse wastewater streams. It will only become one stream from the pump station pumping to the town council's line.

The Proponent considers, in future, treating effluent onsite for re-use as agricultural water. Should this realise it will have to adhere to the Ministry of Agriculture, Water and Land Reform's standards for effluent re-use and will be subject to the appropriate effluent disposal permits. The EIA will need to be updated at such time.

All solids screened from the various effluent streams will either be disposed of at the town council's landfill or collected for re-use (composting) by third parties. All domestic waste will be disposed of at the town council's landfill. Condemned material and potentially hazardous waste will be disposed of according to the requirements of Town Council.

Table 4-1 Main waste streams and disposal methods

Type	Category	Origin	Disposal
Dung	Solid	Lairages and truck washing area	Third party collection for composting
Urine	Liquid	Mixed with wash water from lairages and truck washing area	Effluent stream
Blood	Liquid	Slaughtering area	Third party collection (as much as possible)
Slaughterhouse waste	Solid and liquid	Slaughtering area	Grease and fat traps installed. Solids separated from liquid. Liquids disposed in effluent ponds, solids for third party collection or disposal at Town Council landfill

Type	Category	Origin	Disposal
Condemned material	Solid (biological)	Slaughtering, processing and cold storage area	According to Town Council requirements as biological hazardous waste
Wash water	Liquid	All washing and cleaning water from lairages, slaughtering areas, truck washing area, etc.	Grease and fat traps installed and wash water to become part of effluent stream
Domestic sewage	Liquid and solid	Ablutions, kitchens	Effluent stream
Domestic and office waste	Liquid and solid	Offices, kitchens, etc.	Town Council landfill
Exhaust gases	Gas	Boilers	Released in air
Hazardous waste	Solid, liquid or gas	Expired or contaminated cleaning chemicals or fuels, lubricants, pest control traps, microbiology culture plates, etc.	Returned to supplier or according to Town Council requirements for potentially hazardous waste



Photo 4-9 Existing collection (to be demolished)



Photo 4-10 Effluent collection (to be demolished)

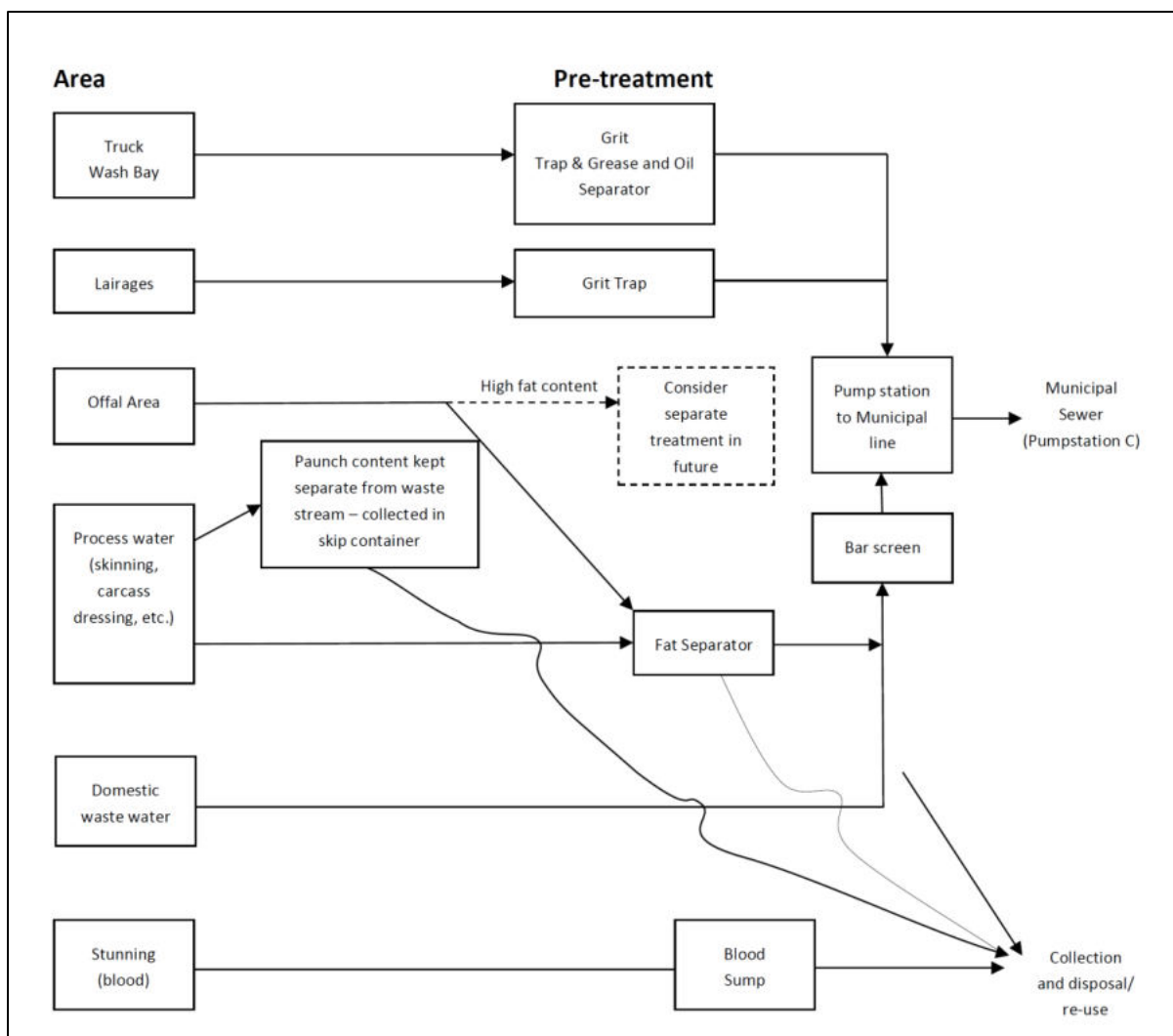


Figure 4-5 Effluent treatment and disposal process (from Burmeister and Partners Consulting Engineers 2023)

4.8 SUPPORT SERVICES

Boilers will be installed to produce hot water for cleaning purposes. In support of the boilers, a consumer fuel installation will be constructed for LFO storage as fuel for the boilers. The LFO tanks will be installed in suitably bunded structures which will meet the requirements of the Ministry of Mines and Energy.

All laundry services and employee meals will be outsourced to local businesses in Rehoboth. A small laboratory will be operated to test for microbial contamination through regular swabs of surfaces, workers' hands, carcasses, etc. Any biological waste from the laboratory must either be incinerated at an approved facility or be sterilised (culture plates) in an autoclave prior to disposal.

Chemicals used mostly for cleaning and disinfection will be stored in dedicated chemical storage areas (Table 4-2). Incompatible chemicals will be segregated (e.g. oxidisers and flammable materials).

Administrative offices and ablution facilities will form part of the facilities. The existing house on site will be utilised as the main office. The site will be fenced with 24 hour security and access control.

General day to day administrative tasks will continue on site, inclusive of cleaning of the premises, waste disposal, maintenance, garden care, etc. No personnel will stay on the site and all personnel will be transported to and from the site by the Proponent.

Table 4-2 Preliminary list of chemicals to be used and stored on site

Name	Function	Hazard	Handling/Storage
AKTI-SUDS	Detergent / Disinfectant	Irritant, Strong oxidising agent Aquatic toxicity for fish	Keep away from water
AUTOWHITE	Detergent	Irritant	Keep away from water
BLAST	Laundry adjunct	Irritant to eyes	Store in original container in cool dry place
CHLORDET	Detergent	Corrosive, Strong oxidising agent	Use vented closures
DC DRAIN CLEANER	Drain cleaner	Corrosive, Can produce corrosive fumes when heated, May be fatal to fish.	Keep container closed
DC HAND RUB	Hand rub	Flammable, Irritant	Store away from heat and oxidizing agents
DELUXE 210	Disinfectant	Irritant	Store away from direct sunlight
FOAMACID	Acid Cleaner	Corrosive	Store away from heat and oxidizing agents
FOX	Foaming peracids Disinfectant	Corrosive, Irritant, Strong oxidising properties	Drums with ventilated caps
HANDYSAN	Hand soap	Irritant to eyes	None
KLORSAN 'L'	Disinfectant	Corrosive Strong oxidising agent	Use ventilated containers
LAV-SOFT	Fabric softener	Irritant to eyes	None
LIFT AWAY	Detergent / Multipurpose Cleaner	Irritant to eyes	None
LO-FOAM- KLOR	Detergent	Corrosive Strong oxidising agent	Use vented closures
OXIACID	Peracids Disinfectant	Corrosive, Strong oxidising properties	Drums with ventilated caps
PROZYME LIQUID	Micro-organism and enzyme preparation/ Bacteria Mixture – breaks (grease trap and drain cleaner)	Irritant to eyes	Well ventilated area
QUATROSAN	Detergent disinfectant	Irritant to eyes	None
SMOKEDET	Alkaline foam cleaner / Smoke House Cleaner	Corrosive	Store away from acids, water, explosives, organic peroxides and easily ignitable materials

Name	Function	Hazard	Handling/Storage
SPECIAL	Alkaline foam cleaner / detergent	Irritant	None
STERIQUAT	Disinfectant	Irritant	None

4.9 EMPLOYMENT

Approximately 150 additional people will be employed at the upgraded and fully operational abattoir. Workers will include skilled, semi-skilled and unskilled workers who will perform various functions in and around the abattoir. Upskilling training of employees will continue throughout operations of the abattoir. In addition to permanent employees, various contractors will be used to perform various specialised and service related tasks.

5 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

5.1 NAMIBIAN LEGISLATION

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an ECC, as per the Namibian legislation. The legislation and standards provided in Table 5-1 to Table 5-3 govern the environmental assessment process in Namibia and/or are relevant to the abattoir. It should be noted that various Namibian acts and ordinances have their origins from pre-independence South African legislation, made applicable to the then “South West Africa”. The Namibian legislative process is slow to repeal and replace many of these laws and they technically remain in place, albeit mostly without accompanying regulations. Where newer acts lacks detailed or adequate regulations and guidelines, Namibia reverts to international law and often use South African regulations and South African National Standards (SANS) as guidelines for development and execution of projects. The Petroleum Products and Energy Act, for example, specifically prescribes SANS standards for fuel installations, while the Namibian meat industry uses the South African Meat Safety Act (2000) as guideline where Namibia lacks its own legislation.

The Rehoboth Town Council relies on national acts and regulations with regard to health, safety and the environment. Specifically the Environmental Management Act and its regulations, the Health and Safety Regulations of the Labour Act, and generic standards or guidelines drafted under the Local Authorities Act. They do however have waste management regulations specific to the town. Apart from such environmental orientated legislation, normal building regulations and approval of building plans are required to be adhered to, but the details of this falls outside the scope of this assessment.

Table 5-1 Namibian law (as may be amended) applicable to the project

Law	Key Aspects
The Namibian Constitution	<ul style="list-style-type: none"> ◆ Promote the welfare of people. ◆ Incorporates a high level of environmental protection. ◆ Incorporates international agreements as part of Namibian law.
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	<ul style="list-style-type: none"> ◆ Defines the environment. ◆ Promote sustainable management of the environment and the use of natural resources. ◆ Provide a process of assessment and control of activities with possible significant effects on the environment.
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	<ul style="list-style-type: none"> ◆ Commencement of the Environmental Management Act. ◆ List activities that requires an environmental clearance certificate. ◆ Provide Environmental Impact Assessment Regulations.
Abattoir Industry Act Act No. 54 of 1976, Government Notice No. 620 of 1976	<ul style="list-style-type: none"> ◆ Makes provision for control on matters related to construction and operations of abattoirs.
Meat Industry Act Act 12 of 1981, Government Notice No. 99 of 1981	<ul style="list-style-type: none"> ◆ Provides for control over the grading, sale, import and export of livestock, meat and meat products, and the levies on these items.
Namibian Food Safety Policy of 2014	<ul style="list-style-type: none"> ◆ Aims to protect consumer health while facilitating trade in food. ◆ Policy ensures that control standards are established and adhered to as regards food production safety, food product hygiene, animal health and welfare, plant health and preventing the risk of contamination from external substances. ◆ Lays down conditions for regulations on appropriate labelling for these foodstuffs and food products.
General Health Regulations Government Notice 121 of 1969	<ul style="list-style-type: none"> ◆ Lays down minimum requirements and standards for, among others, butcheries and abattoirs. ◆ Requires the registration of abattoirs.
Animal Health Act Act No. 1 of 2011, Government Notice 46 of 2011	<ul style="list-style-type: none"> ◆ Provide for the prevention, detection and control of animal disease and the maintenance and improvement of animal health.
Prevention of Undesirable Residue in Meat Act Act 21 of 1991, Government Notice No. 322 of 1991	<ul style="list-style-type: none"> ◆ Regulate the slaughtering of animals and the marketing of meat and meat products
Abattoirs Restriction Proclamation 8 of 1944	<ul style="list-style-type: none"> ◆ Places restrictions on the types of animals which can be slaughtered in abattoirs. ◆ Prohibits slaughtering of animals other than stock without consent. ◆ Makes no provision for regulations.
Cold Storage Works and Abattoirs Proclamation 50 of 1921	<ul style="list-style-type: none"> ◆ Places limits on the construction and operation of cold storage works used for the export of meat. ◆ No regulations known of.

Law	Key Aspects
Animals Protection Act Act No. 71 of 1962, Government Gazette Extraordinaire of 22 nd June 1962	<ul style="list-style-type: none"> ◆ To consolidate and amend the laws relating to the prevention of cruelty to animals
Agricultural Produce Export Ordinance 13 of 1928	<ul style="list-style-type: none"> ◆ Regulates the export of agricultural produce and meat. ◆ No regulations known of.
Petroleum Products and Energy Act Act No. 13 of 1990, Government Notice No. 45 of 1990	<ul style="list-style-type: none"> ◆ Regulates petroleum industry. ◆ Makes provision for impact assessment. ◆ Petroleum Products Regulations (Government Notice No. 155 of 2000).
The Water Act Act No. 54 of 1956	<ul style="list-style-type: none"> ◆ Remains in force until the new Water Resources Management Act comes into force. ◆ Defines the interests of the state in protecting water resources. ◆ Controls and permits the disposal of effluent. ◆ Numerous amendments.
Water Resources Management Act Act No. 11 of 2013	<ul style="list-style-type: none"> ◆ Provide for management, protection, development, use and conservation of water resources. ◆ Prevention of water pollution and assignment of liability. ◆ Not in force yet.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	<ul style="list-style-type: none"> ◆ Define the powers, duties and functions of local authority councils. ◆ Regulates discharges into sewers and provide standards to which such effluent must adhere (Model Sewerage and Drainage Regulations (Government Notice No 99 of 1996)
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	<ul style="list-style-type: none"> ◆ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters. ◆ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation.
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	<ul style="list-style-type: none"> ◆ Provides for Labour Law and the protection and safety of employees. ◆ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997).
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	<ul style="list-style-type: none"> ◆ Governs the control of noxious or offensive gases ◆ Prohibits scheduled process without a registration certificate in a controlled area. ◆ Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.
Hazardous Substances Ordinance Ordinance No. 14 of 1974	<ul style="list-style-type: none"> ◆ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export. ◆ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings.

Law	Key Aspects
Pollution Control and Waste Management Bill	<ul style="list-style-type: none"> ◆ The bill aims to prevent and regulate the discharge of pollutants to air, water, and land. It further aims to promote the establishment of a system of waste management, and enable Namibia to meet its international obligations. Only unrecyclable and unusable materials will be disposed of at a designated disposal site.

Table 5-2 Guiding documents, directives and standards

Law	Key Aspects
Town of Rehoboth: Waste Management Regulations: Local Authorities Act, 1992 (Government Gazette No. 3722 of 2006, Notice No. 326)	<ul style="list-style-type: none"> ◆ Regulations relating to the handling and disposal of waste within the Rehoboth Town Council's area of jurisdiction.
Meat Safety Act of 2000 of South Africa	<ul style="list-style-type: none"> ◆ Provides guidance for the local meat industry where Namibia lacks its own regulations in respect of promotion of meat safety and the safety of animal products; standards, regulations on the importation and exportation of meat.
Red Meat Regulations (2004) of the Meat Safety Act (2000) of South Africa	<ul style="list-style-type: none"> ◆ Where lacking in Namibia, provides guidelines on registrations, hygiene, treatment of animals, inspections, marks and marking, condemned material, and export and import regulations related to red meat and abattoirs.
Farm Assured Namibian Meat (FAN Meat) Scheme Standards for Export Abattoirs	<ul style="list-style-type: none"> ◆ Provides standards for: design and maintenance of facility and equipment; sanitation; personnel hygiene and training; pest control; water quality; waste and effluent control; animal welfare, humane treatment of animals and slaughter process; meat inspection; traceability requirements; carcass classification; ante-mortem inspection; hazard analysis critical control points (HACCP) system; and marketing and the use of the FAN meat logo.
European Union Directives	<ul style="list-style-type: none"> ◆ Food safety and hygiene: Regulation (EC) No 178/2002, 852/2004, 853/2004, 854/2004 ◆ Microbiological criteria. Regulation (EC) No 2073/2005 ◆ Animal Welfare: Regulation (EC) No 1099/2010 ◆ Residues: Commission Decision 96/23/EC ◆ Animal by-products: Regulation (EC) No 142/2011 ◆ Official Controls: Regulation (EC) No 854/2004, 882/2004
SANS 893-1&2:2018	<ul style="list-style-type: none"> ◆ Standards for risk assessment and the control of <i>Legionella</i> spp. (bacteria) in water sources.
South African National Standards (SANS) 10089 & 10131	<ul style="list-style-type: none"> ◆ The Petroleum Products and Energy Act prescribes SANS standards for the construction, operations and demolition of petroleum facilities. ◆ SANS 10089-3:2010 is specifically aimed at storage and distribution of petroleum products at fuel retail facilities and consumer installations. ◆ SANS 10131: 2004 Deals with above-ground storage tanks for petroleum products ◆ Provide requirements for spill control infrastructure
South African National Standards (SANS) 10147	<ul style="list-style-type: none"> ◆ Provides standards for the installation and operations of refrigeration plants (with reference to using ammonia as coolant)

Law	Key Aspects
Town of Rehoboth: Waste Management Regulations: Local Authorities Act, 1992 (Government Gazette No. 3722 of 2006, Notice No. 326)	<ul style="list-style-type: none"> Regulations relating to the handling and disposal of waste within the Rehoboth Town Council's area of jurisdiction.
SANS 893-1&2:2018	<ul style="list-style-type: none"> Standards for risk assessment and the control of <i>Legionella</i> spp. (bacteria) in water sources.

Table 5-3 Relevant multilateral environmental agreements for Namibia and the abattoir

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972.	<ul style="list-style-type: none"> Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.
1985 Vienna Convention for the Protection of the Ozone Layer	<ul style="list-style-type: none"> Aims to protect human health and the environment against adverse effects from modification of the Ozone Layer are considered Adopted to regulate levels of greenhouse gas concentration in the atmosphere.
United Nations Framework Convention on Climate Change (UNFCCC)	<ul style="list-style-type: none"> The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention.
Convention on Biological Diversity, Rio de Janeiro, 1992	<ul style="list-style-type: none"> Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.

Listed activities which require an ECC application (Government Regulation No 29 of 2012) related to this project include the following:

Section 8 of Government Notice No. 29 of 2012: Water Resource Developments

- 8.1 The abstraction of ground or surface water for industrial or commercial purposes. The Proponent will abstract water from a borehole on site.

Section 9 of Government Notice No. 29 of 2012: Hazardous Substance Treatment, Handling and Storage

- 9.1 “The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.” Fuel, ammonia and various chemicals will be stored on site.
- 9.2 “Any process or activity which requires a permit, licence or other form of authorisation, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, licence or authorisation or which requires a new permit, licence or authorisation in terms of a law governing the generation or release of emissions, pollution, effluent or waste.” The Proponent plans to store fuel on site in an above ground tank.
- “Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin” Fuel will be stored in an aboveground tank on site.

5.2 INTERNATIONAL GUIDELINES

The Namibian legislature lacks specific, enforceable air quality parameters¹ for operations such as boilers. In general air quality standards aim to protect human life as well as ecosystems. In light of the lack of enforceable standards, projects may revert to the World Bank and International Finance Corporation's (IFC) Environmental, Health, and Safety guidelines (known as the EHS guidelines). These guidelines are technical reference documents which may be considered by specific industries. The use of these guidelines are hinged on the condition that the guidelines be adapted to site specific variables, considering the sensitivity of the environment and project factors as indicated in the environmental assessment.

For the purposes of this project, reference is made to the "General EHS Guidelines: Environmental Air Emissions and Ambient Air Quality".

The proposed boiler system used to heat the water may be classified as a "Small Combustion Facility". These are systems which are designed to deliver electrical or mechanical power, steam, heat, or any combination of these, regardless of the fuel type, with a total, rated heat input capacity of between three (3) Megawatt thermal (MWth) and 50 MWth. The emissions guidelines in Table 5-4 (as adapted from the guidelines) are applicable to small combustion process installations operating more than 500 hours per year, and those with an annual capacity utilization of more than 30 percent (IFC, 2007).

Table 5-4 Small combustion facilities emissions guidelines (3 MWth – 50 MWth) – (in mg/Nm³ or as indicated) as adapted from the EHS Guidelines (IFC, 2007)

Combustion Technology / Fuel	Particulate Matter (PM)	Sulfur Dioxide (SO ₂)	Nitrogen Oxides (NO _x)	Dry Gas, Excess O ₂ Content (%)
Boiler				
Gas	N/A	N/A	320	3
Liquid	50 or up to 150 if justified by environmental assessment	2,000	460	3
Solid	50 or up to 150 if justified by environmental assessment	2,000	650	6

Notes: -N/A - no emissions guideline; Higher performance levels than these in the Table should be applicable to facilities located in urban / industrial areas with degraded airsheds or close to ecologically sensitive areas where more stringent emissions controls may be needed.; MWth is heat input on high heat value basis; Solid fuels include biomass; Nm³ is at one atmosphere pressure, 0°C.; MWth category is to apply to the entire facility consisting of multiple units that are reasonably considered to be emitted from a common stack except for NO_x and PM limits for turbines and boilers.

5.3 PERMITTING

Various considerations as well as obtaining of permits and approvals are required for the upgrade of the abattoir to export ready standards. A list of these as considered by the Proponent are presented in:

- ◆ Environmental clearance certificate
- ◆ Building permits / town planning approval / council consent as applicable
- ◆ Meat Board Permit

¹ Ambient standards provide the maximum allowable level of a pollutant in the receiving environment whereas emission standards set the maximum amount of pollutant that may be released

- ◆ Bulk infrastructure approvals which may include Roads Authority approval and electricity and water supply agreements
- ◆ Effluent disposal permit / agreement from the Town Council for disposal into the existing Town Council Sewage Treatment Plant (should an onsite treatment plant be proposed in future, permitting will be required from the Ministry of Agriculture, Water and Land Reform)

A water abstraction permit from the borehole is not deemed necessary as the area falls outside of a water control area. Should the area be declared a water control area in future, permitting requirements may change.

6 ENVIRONMENTAL CHARACTERISTICS

The following section provides a brief description of the environment of the abattoir.

6.1 LOCALITY AND SURROUNDING LAND USE

The abattoir is located 1.3 km south of Rehoboth, directly east of the B1 Trunk Road on Portion 57 of Farm Rehoboth Dorpsgrond No. 302 (23.345022 °S, 17.081403 °E). Operations are located on agricultural land and surrounded by agricultural related properties. West of the abattoir and opposite the B1 Main Road is the Hobasen Montana Lodge.

Implications and Impacts

The facility is an existing facility with no residential or sensitive receptors near the site. Surrounding land use relates to agricultural uses and there are no industries which present a risk to the abattoir operations or *vice versa*.

6.2 CLIMATE

The general lack of functioning weather stations in Namibia, in especially rural areas, limits the availability of long term, true weather data. As a best possible workaround, long term climate data was obtained from the Atlas of Namibia Project (2002) and the CHIRPS-2 (Climate Hazards Group Infra-Red Precipitation with Station data version 2) database (Funk et al., 2015), see Table 5-5 and Figure 5-1. Atlas of Namibia Project data was compiled from almost 300 rainfall stations across Namibia. The data was contoured in 50 mm intervals prior to 1999 for variable length data sets. The CHIRPS-2 dataset consists of long term rainfall data (1981 to near-present) obtained from satellite imagery and in-situ station data. The resultant dataset provides a reasonably well represented overview of the climatic conditions and historic rainfall of the general area. True values for single, site specific meteorological events may however differ to some degree.

According to the Köppen-Geiger Climate Classification system the project is located in a hot desert climate (BWh) (<http://koeppen-geiger.vu-wien.ac.at/present.htm>). This means that the area receives precipitation well below potential evapotranspiration and no more than 200 mm of precipitation annually, with a mean annual temperature of at least 18 °C.

The rain season normally starts in October and last until April, peaking in January to March. Heavier rainfall (single day events) occur between November and April, with a single event of 154.7 mm in January (last 40 years data) being the highest (Table 5-6). The average annual evaporation rate remains high at more than 3,200 mm/a (Table 5-5). The average annual rainfall for the last 40 years was calculated as 157 mm/a, with a coefficient of variance of 41% (Table 5-6). This rainfall and coefficient of variance is lower than the Atlas of Namibia Project data of Table 5-5. Daily and seasonal rainfall data (Funk et al., 2015) is presented in Figure 5-1. Seasonal (July to June) total rainfall, centred on the average line for the last 40 years, is presented, with the daily total rainfall and the seasonal cumulative rainfall. From the figure it is clear that since 2010 the Rehoboth area received mostly below average rainfall with the driest years between 2018 and 2020.

Average annual temperature is 19 to 20 °C and the solar radiation index is more than 5.8 kWh/m² for the area. The prevailing wind direction is northeast to southeast with the main component being east winds (Figure 5-2).

Table 5-5 Climate summary (Atlas of Namibia Project, 2002)

Average annual rainfall (mm/a)	200-250
Variation in annual rainfall (%)	50-60
Average annual evaporation (mm/a)	3200-3400
Water deficit (mm/a)	2100-2300
Average annual temperatures (°C)	19-20
Average solar radiation (kWh/m ² /day)	>5.8

Table 5-6 Rainfall statistics based on CHIRPS-2 data (Funk et al., 2015)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Minimum (mm/m)	5.11	4.40	6.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Maximum (mm/m)	154.69	134.67	99.89	44.81	12.90	0.25	0.00	0.15	5.58	10.14	42.26	21.26	
Average (mm/m)	42.2	39.1	36.4	9.8	2.1	0.0	0.0	0.0	1.1	2.4	12.0	7.7	
Variability (%)	76.0	74.0	66.0	93.0	170.0	351.0	436.0	389.0	167.0	108.0	81.0	85.0	
Daily maximum (mm)	35.2	32.4	29.4	18.6	12.9	0.3	0.0	0.1	5.0	7.1	12.9	9.2	
Average rain days	6	7	5	2	1	0	0	0	1	2	3	3	
Season July - June average: 157 mm			Season coefficient of variation: 41 %										
Data range	1981-Jul-01 to					2021-Jun-30					Lat: 23.345°S Long: 17.0814°E		

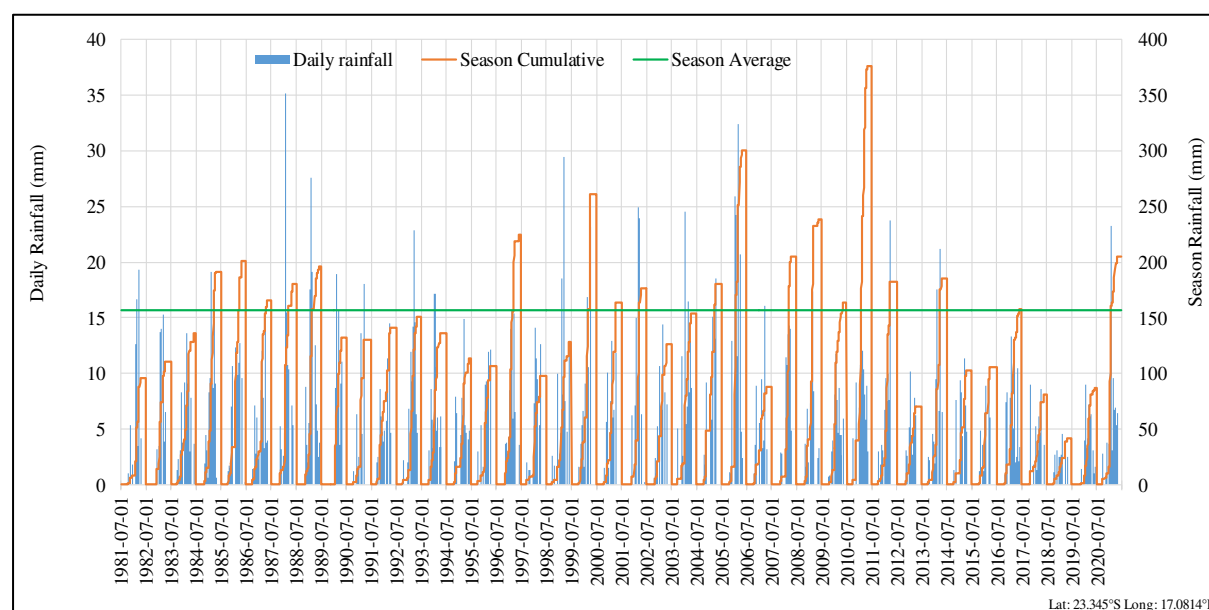


Figure 5-1 Daily and seasonal rainfall from CHIRPS-2 data (Funk et al., 2015)

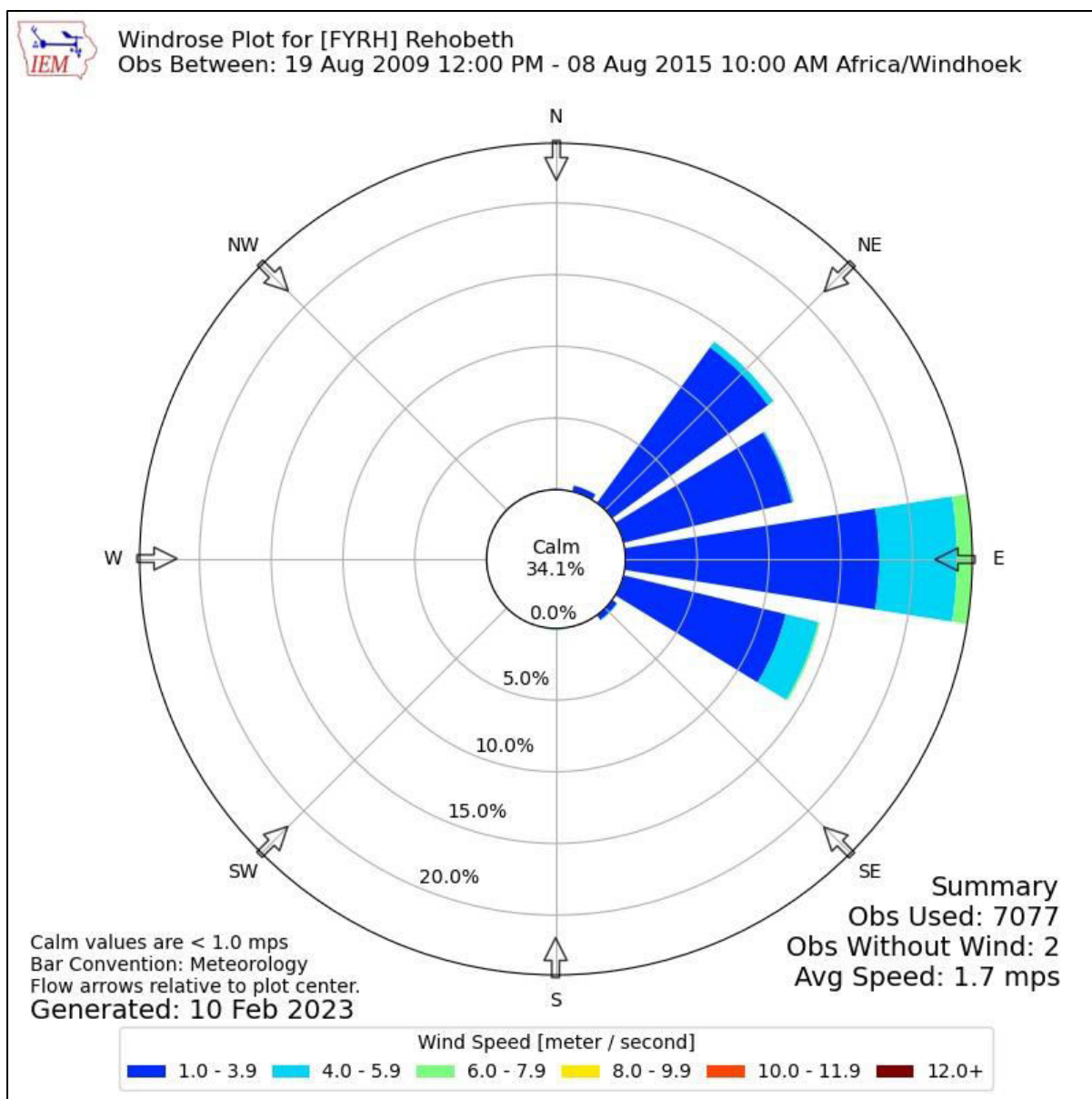


Figure 5-2 Windrose for the Rehoboth area (<https://mesonet.agron.iastate.edu>)

Implications and Impacts

Water is a scarce and valuable resource in Namibia and the variability in seasonal rainfall makes water an extremely vulnerable resource.

Storm water may wash pollutants like uncontained, spilled hydrocarbons or chemicals, or waste into the environment and cause pollution.

6.3 TOPOGRAPHY AND DRAINAGE

Local topography is a flat lying valley with plateau remnants reflecting older land levels. The landscape is characterized as the Kalahari sandveld with deposits of palaeo dunes and pans. Rehoboth is located within the catchment of the Oanob River, an ephemeral river, draining in a southeastern direction (Figure 5-3). Site drainage is in a north to north-eastern direction into the Oanob River. The Oanob River falls in the catchment of the larger Auob River, which flows into the Nossob River further downstream.

Implications and Impacts

During the operational phase, any pollutants that are not contained, and are transported via surface water flow, will be transported out of the site via water drainage lines and potentially pollute the surrounding environment and the river.

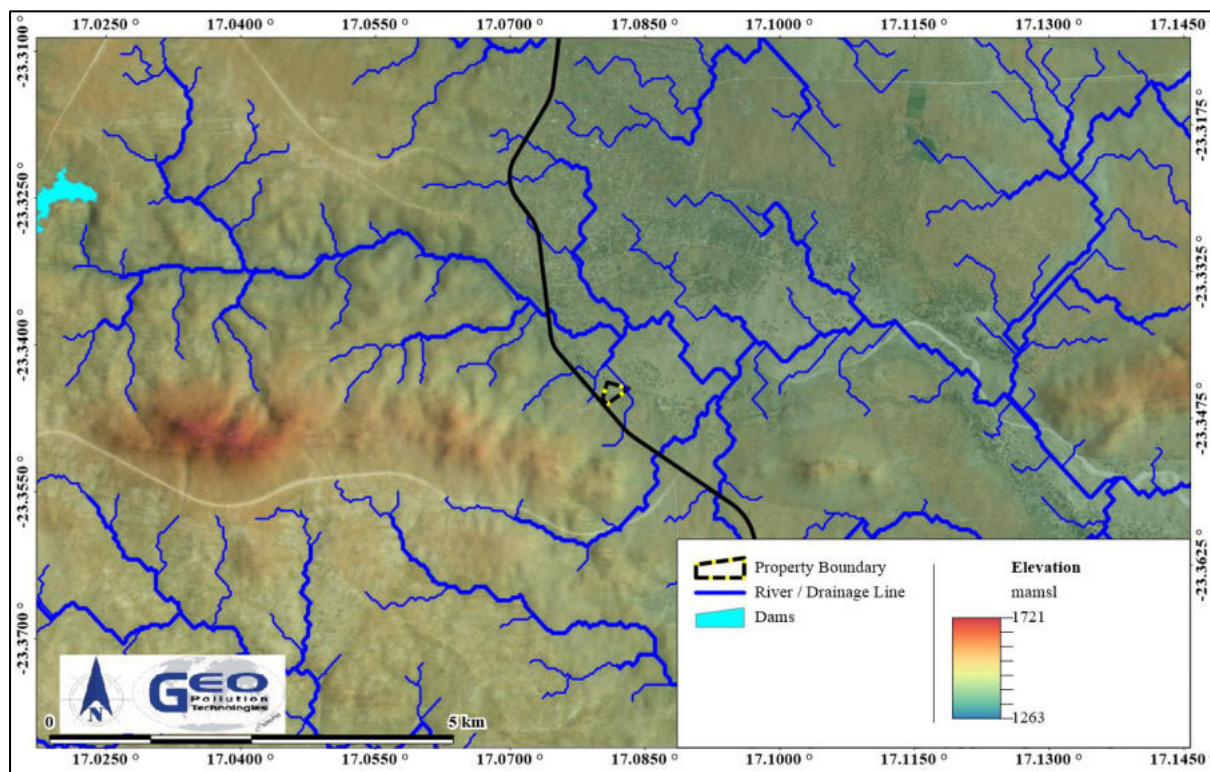


Figure 5-3 Surface drainage

6.4 GEOLOGY AND HYDROGEOLOGY

Rehoboth is situated within the Rehoboth Basement Inlier within the Southern Foreland of the Damara belt. Conglomerate of the Langberg Formation of Mokolian age is locally overlain by surficial deposits of Quaternary age. Thickness of this surface cover is unknown. Alluvium of Quaternary age is present in the Oanob River along the northern boundary of the property.

Groundwater flow will be through primary porosity in the Quaternary age deposits, while it will be through secondary porosity (fractures, faults and similar structures) in the underlying rock formations.

The alluvium of the Oanob River form the Oanob Aquifer (21.5 km long by approximately 2.5 km wide) that historically supplied the Rehoboth Town Council with water. Abstraction from this aquifer was reduced after completion in 1990 of the upstream Oanob Dam. Recharge to the aquifer was also reduced after construction of the dam with recharge now mainly taking place when water is released from the dam.

The Oanob Aquifer is currently mostly being used by local farmers but it can still serve as back-up supply to Rehoboth.

Table 5-7 indicates the groundwater statistics for a radius of 5 km around the project area. The groundwater information was obtained from Department of Water Affairs (DWA) borehole database and from the Client. The DWA database is generally outdated and more boreholes might be present. Groundwater is widely utilised in the study area, with a total of 78 boreholes within a 5 km radius. The average water level is 23 m below surface, with artesian conditions found in the Rehoboth town where a hydrothermal aquifer is present. The groundwater is mostly of excellent quality but elevated fluoride and sulphate concentrations do occur.

This site does not fall within a water control area. The local authority might impose regulations on drilling of boreholes and the abstraction of water within their area of jurisdiction.

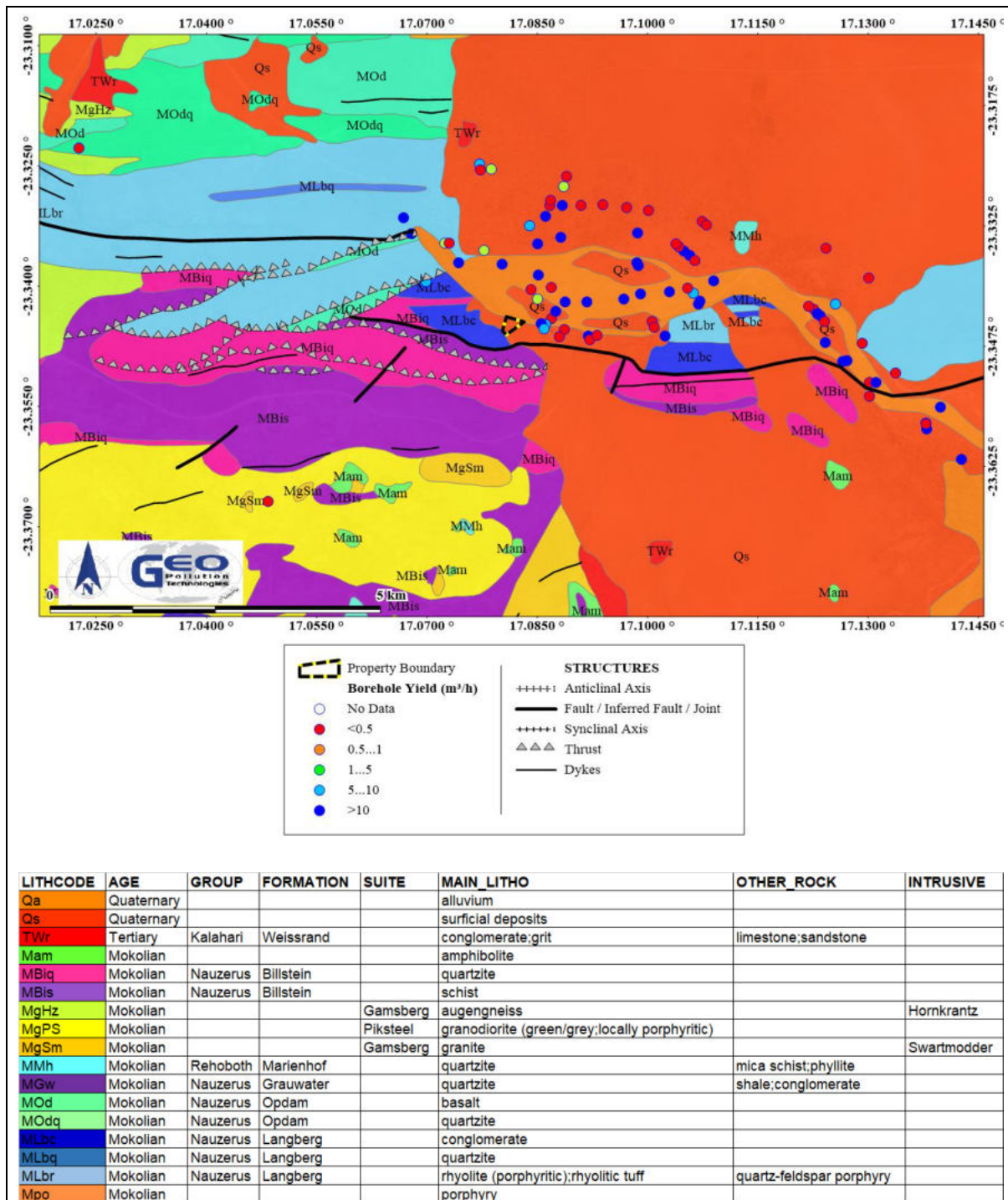



Figure 5-4 Hydrogeology

Table 5-7 Groundwater statistics

Query Centre: Rehoboth; -23.345°S; 17.0814°E		Query Box Radius: 50km										
		NUMBER OF KNOWN BOREHOLES	LATITUDE	LONGITUDE	DEPTH (m/b)	YIELD (m ³ /h)	WATER LEVEL (m/b)	WATER STRIKE (m/b)	TDS (ppm)	SULPHATE (ppm)	NITRATE (ppm)	FLUORIDE (ppm)
Data points		78			68	43	59	49	23	23	23	23
Minimum			-23.300004	17.032392	5	0	1	3	102	5	0	0
Average					29	14	23	8	535	159	3	2
Maximum			-23.389996	17.130408	105	49	385	47	1889	720	11	9
Group A					83.82%	69.77%	86.44%	85.71%	82.61%	69.57%	95.65%	69.57%
<i>Limit</i>					50	>10	10	10	1000	200	10	1.5
Group B					14.71%	13.95%	8.47%	14.29%	4.35%	17.39%	4.35%	8.70%
<i>Limit</i>					100	>5	50	50	1500	600	20	2.0
Group C					1.47%	11.63%	0.00%	0.00%	13.04%	13.04%	0.00%	4.35%
<i>Limit</i>					200	>0.5	100	100	2000	1200	40	3.0
Group D					0.00%	4.65%	5.08%	0.00%	0.00%	0.00%	0.00%	17.39%
<i>Limit</i>					>200	<0.5	>100	>100	>2000	>1200	>40	>3

Statistical grouping of parameters is for ease of interpretation, except for the grouping used for sulphate, nitrate and fluoride, which follow the Namibian guidelines for the evaluation of drinking-water quality for human consumption, with regard to chemical, physical and bacteriological quality. In this case the groupings has the following meaning:

Group A: Water with an excellent quality

Group B: Water with acceptable quality

Group C: Water with low health risk

Group D: Water with a high health risk, or water unsuitable for human consumption.

Implications and Impacts

A risk to groundwater pollution, and ultimately the Oanob River exists due to the geological sensitivity of the area. This is mainly due to the nature of the surficial deposits which is sensitive to contamination, as well as the shallow groundwater. Groundwater remains an important resource and would be at risk if effluent / sewage / fuel spills are not contained, cleaned and disposed of properly.

6.5 WATER SUPPLY

Rehoboth's main potable water source is Oanob Dam which is located 7 km west of the town. The water is purified and chlorinated in a treatment plant at the dam and pumped via a pipeline to reservoirs in town. Prior to 1990, before the dam was built, water from the Oanob Aquifer was utilised. Water supply is by NamWater via the Town Council.

Implications and Impacts

Water usage of the abattoir is not expected to impact significantly on the availability of public water. Furthermore, the utilisation of the onsite borehole to augment water usage will further reduce pressure on the town's potable water supply.

6.6 FAUNA AND FLORA

The site falls within the Savanna biome having a southern Kalahari vegetation type and a Kalahari shrubland vegetation structure. The diversity of higher plants in the area is medium with between 150 and 300 plants species (Table 5-8) (Atlas of Namibia Project, 2002). Dominant plants are expected to be *Aristida meridionalis*, *Schmidtia kalahariensis*, *Eragrostis lehmanniana*, *Acacia erioloba*, *Stipagrostis uniplumis* v. *uniplumis*, *Grewia flava*, *Aristida stipitata* s. *spicata* and *Acacia haematoxylon*. General fauna diversity is indicated in Table 5-9.

Table 5-8 General flora data (Atlas of Namibia Project, 2002)

Biome	Savanna
Vegetation type	Southern Kalahari
Vegetation structure type	Kalahari shrubland
Diversity of higher plants	Medium (Diversity rank = 4 [1 to 7 representing highest to lowest diversity])
Number of plant species	150 - 300

Table 5-9 General fauna data (Atlas of Namibia Project, 2002)

Mammal Diversity	61 - 75 Species
Rodent Diversity	20 - 23 Species
Bird Diversity	171 - 200 Species
Reptile Diversity	61 - 70 Species
Snake Diversity	25 - 29 Species
Lizard Diversity	28 - 31 Species
Frog Diversity	8 - 11 Species
Termite Diversity	7 - 9 Genera
Scorpion Diversity	16 - 17 Species

Implications and Impacts

It is an existing facility and no additional large scale habitat clearing will result from the planned upgrades and future operations. Possible pollution and changes to, or creation of, habitats, may create a suitable environment for species not traditionally know in the area, to establish and proliferate.

Slaughterhouse waste may present an opportunity for wildlife scavenging etc., while uncontrolled pollution (such a hydrocarbon spill) can cause damage to the local biodiversity.

6.7 DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

The project area falls within the Hardap Region and the Rehoboth West Urban Constituency. The Hardap Region has a population of 79,507 people and a density of 0.7 people per km² (National Planning Commission, 2012). The Rehoboth West Urban Constituency has 11,197 inhabitants with an unemployment rate of 30%, about 4% above the Region's unemployment rate, but still lower than the National unemployment rate. Literacy is very high at 97%. Table 5-10 provides demographic information for Mariental, the region and nationally.

Table 5-10 Demographic characteristics of Rehoboth, Hardap Region and Nationally (Namibia Statistics Agency, 2014; Namibia Statistics Agency, 2009/2010)

	Rehoboth West Urban Constituency	Hardap Region	Namibia
Population (Males)	5,452	40,572	1,021,912
Population (Females)	5,745	38,935	1,091,165
Population (Total)	11,197	79, 507	2,113,077
Unemployment (15+ years)	30%	26.2%	33.8%
Literacy (15+ years)	97%	90.9%	87.7%

*Data available from preliminary results only (National Planning Commission, 2012)

Implications and Impacts

The abattoir will provide employment to people from the area. Some skills development and training will benefit employees during the construction and operational phases.

6.8 ARCHAEOLOGICAL OR CULTURALLY SIGNIFICANT AREAS

There are no known archaeological or culturally significant areas in close proximity to the abattoir.

Implications and Impacts

No impacts expected.

7 PUBLIC CONSULTATION

Consultation with the public forms an integral component of an environmental assessment investigation and enables interested and affected parties (IAPs) e.g. neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with projects and to identify additional issues which they feel should be addressed in the environmental assessment.

Public participation notices were advertised twice for two weeks in the national papers: Republikein and Namibian Sun on 6 and 13 September 2022. A site notice was placed at Reho Abattoir. Interested and affected parties were identified and notified of the project. Notification letters were hand delivered to available neighbours as well as the Town Council of Rehoboth. See Appendix A for proof of the public participation processes. No concerns regarding the project were raised during the public consultation phase.

8 MAJOR IDENTIFIED IMPACTS

During the scoping exercise a number of potential environmental impacts have been identified. The following section provides a brief description of the most important of these impacts.

8.1 SOCIO-ECONOMIC IMPACTS

Once fully developed, the operations of Reho Abattoir will provide 150 additional employment opportunities to residents of Rehoboth. Training and skills development will take place throughout operations. A definite economic spinoff will result from both the construction phase and operations as these will provide a financial injection into the town through the support of various businesses and service providers (mechanical and building contractors, vendors, plant hire, subsistence, etc.) as well as through the payment of salaries and wages to locally employed people. In addition, meat is provided to approximately seven butcheries in the local Rehoboth community while offal are sold in local informal markets. The export of beef to international markets will contribute towards a positive trade balance for Namibia and revenue will be paid to the National treasury. The livestock farming industry will be promoted with potential for expansion and additional investments in this sector.

8.2 VISUAL IMPACT

In the short term, the upgrade of the existing abattoir will see a significant improvement in facility aesthetics and will thus have a positive impact on the area. In the long term the facility must be continuously maintained in order to maintain the visual character.

8.3 ENVIRONMENTAL CONTAMINATION

During the storage and handling of chemicals, fuel sewage and slaughterhouse wastes at the site, as well as during transportation thereof, contamination of the environment may occur. Such substances may have detrimental ecological effects if released into the environment and may contaminate groundwater. These risks will however be mitigated and prevented by strict adherence to all MSDS requirements, as well by ensuring all chemical handling take place within the enclosed warehouse, with sufficient spill control infrastructure. The close proximity of the borehole to the planned cattle lairage puts groundwater further at risk if manure and urine is allowed to seep into the ground near the borehole.

8.4 NOISE IMPACTS

The multifaceted operations of an abattoir involve various systems and machines which will generate noise of various intensity. These include compressors, pressure washers, electrical saws, etc. Maintenance and construction activities may cause temporary elevated noise levels. Noise impacts will be limited to workers and visitors present on site as no other receptors (neighbours) are present near the facility.

8.5 DUST/AIR QUALITY

Dust may be generated during the construction phase. The abattoir will include the handling of potentially foul smelling materials if waste products are not disposed of timeously and according to accepted standards.

8.6 TRAFFIC IMPACTS

The abattoir is an existing facility with existing contribution to traffic, but increased slaughtering volumes will increase traffic to and from the site. Construction will also see a temporary increase in traffic to the site. Potential incidents are most likely at the turnoff from the B1 Highway. The Proponent however plans to reroute the access road to the facility to a Roads Authority approved junction.

8.7 FIRE

Failing electrical infrastructure, maintenance and construction activities, incorrect chemical storage, boiler operations, etc. all can result in accidental fires. Ammonia, if present in low volumes in air becomes flammable, and a fire and explosion risk is present where ammonia forms a 15% to 28% mixture with air. Typically experienced in boiling liquid expanding vapour fires/explosions.

8.8 ANIMAL WELFARE

The upgraded facility will see an improvement in animal welfare as opposed to the existing facility. However, livestock, and especially cattle, can still become very stressed during handling and prior to entering the abattoir. This will be aggravated where employees are not properly trained in industry accepted standards for handling of livestock at slaughtering facilities.

9 ASSESSMENT AND MANAGEMENT OF IMPACTS

The purpose of this section is to assess and identify the most pertinent environmental impacts that are expected from the operational, construction (upgrades, maintenance, etc. – see glossary for “construction”) and potential decommissioning activities of the facility. An EMP based on these identified impacts are also incorporated into this section.

For each impact an Environmental Classification was determined based on an adapted version of the Rapid Impact Assessment Method (Pastakia, 1998). Impacts are assessed according to the following categories: Importance of condition (A1); Magnitude of Change (A2); Permanence (B1); Reversibility (B2); and Cumulative Nature (B3) (see Table 9-1)

Ranking formulas are then calculated as follow:

$$\text{Environmental Classification} = A1 \times A2 \times (B1 + B2 + B3)$$

The environmental classification of impacts is provided in Table 9-2.

The probability ranking refers to the probability that a specific impact will happen following a risk event. These can be improbable (low likelihood); probable (distinct possibility); highly probable (most likely); and definite (impact will occur regardless of prevention measures).

Table 9-1 Assessment criteria

Criteria	Score
Importance of condition (A1) – assessed against the spatial boundaries of human interest it will affect	
Importance to national/international interest	4
Important to regional/national interest	3
Important to areas immediately outside the local condition	2
Important only to the local condition	1
No importance	0

Magnitude of change/effect (A2) – measure of scale in terms of benefit / disbenefit of an impact or condition	
Major positive benefit	3
Significant improvement in status quo	2
Improvement in status quo	1
No change in status quo	0
Negative change in status quo	-1
Significant negative disbenefit or change	-2
Major disbenefit or change	-3
Permanence (B1) – defines whether the condition is permanent or temporary	
No change/Not applicable	1
Temporary	2
Permanent	3
Reversibility (B2) – defines whether the condition can be changed and is a measure of the control over the condition	
No change/Not applicable	1
Reversible	2
Irreversible	3
Cumulative (B3) – reflects whether the effect will be a single direct impact or will include cumulative impacts over time, or synergistic effect with other conditions. It is a means of judging the sustainability of the condition – not to be confused with the permanence criterion.	
Light or No Cumulative Character/Not applicable	1
Moderate Cumulative Character	2
Strong Cumulative Character	3

Table 9-2 Environmental classification (Pastakia 1998)

Environmental Classification	Class Value	Description of Class
72 to 108	5	Extremely positive impact
36 to 71	4	Significantly positive impact
19 to 35	3	Moderately positive impact
10 to 18	2	Less positive impact
1 to 9	1	Reduced positive impact
0	-0	No alteration
-1 to -9	-1	Reduced negative impact
-10 to -18	-2	Less negative impact
-19 to -35	-3	Moderately negative impact
-36 to -71	-4	Significantly negative impact
-72 to -108	-5	Extremely Negative Impact

9.1 RISK ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

The EMP provides management options to ensure impacts of the facility is minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the operation of the facility. This section of the report can act as a stand-alone document. All

personnel taking part in the operations of the facility should be made aware of the contents in this section, so as to plan the operations accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of construction activities (upgrades, maintenance, etc.) and operations of the facility;
- ◆ to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- ◆ to monitor and audit the performance of operational personnel in applying such controls; and
- ◆ to ensure that appropriate environmental training is provided to responsible operational personnel.

Various potential and definite impacts will emanate from the operations, construction and decommissioning phases. The majority of these impacts can be mitigated or prevented. The impacts, risk rating of impacts as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the construction and operational phases are expected to mostly be of low to medium significance and can mostly be mitigated to have a low significance. The extent of impacts are mostly site specific to local and are not of a permanent nature. Due to the nature of the surrounding areas, cumulative impacts are possible and include noise pollution and traffic impacts.

9.1.1 Planning

During the phases of planning for construction, operations and decommissioning of the facility, it is the responsibility of proponent to ensure they are and remain compliant with all legal requirements. The Proponent must also ensure that all required management measures are in place prior to and during all phases, to ensure potential impacts and risks are minimised. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- ◆ Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the construction (maintenance) and operations of the project are in place and valid.
- ◆ Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- ◆ Make provisions to have a Health, Safety and Environmental Coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.
- ◆ Have the following emergency plans, equipment and personnel on site, where reasonable, to deal with all potential emergencies:
 - Risk management / mitigation / EMP/ Emergency Response Plan and HSE Manuals
 - Adequate protection and indemnity insurance cover for incidents;
 - Comply with the provisions of all relevant safety standards;
 - Procedures, equipment and materials required for emergencies.
- ◆ If one has not already been established, establish and maintain a fund for future ecological restoration of the project site should project activities cease and the site is decommissioned and environmental restoration or pollution remediation is required.
- ◆ Keep records of aspects of construction activities, operations and decommissioning as outlined in the EMP.
- ◆ Comply with conditions accompanying the ECC.
- ◆ Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the environmental clearance certificate prior to expiry.

9.1.2 Economic Resilience

The upgrading and expansion of the abattoir will lead to changes in the way revenue is generated and paid to the national treasury. Commissioning this operation for the export market will contribute to the national GDP, a positive trade balance and economic resilience of Namibia.

Skilled and unskilled labour will be required for the operations and maintenance / construction activities associated with the abattoir. Employment increases individual and societal economic resilience through, not only the payment of wages, but also contributions to social security and fringe benefits.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Contribution to local economy	2	1	2	2	2	12	2	Definite
Daily Operations	Contribution to local economy	3	1	3	3	2	32	3	Definite
Indirect Impacts	Increase in revenue generated	3	1	3	3	2	32	3	Definite

Desired Outcome: Contribution to national treasury and remuneration of temporary and permanent employees as per the Labour Act. Continued contributions to social security.

Actions

Mitigation:

- ◆ The Proponent must employ local Namibians where possible.
- ◆ Develop and maintain a contractor management program, inclusive of compliance reviews of service level agreements etc.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Employee records and proof of financial contributions to the various institutions such as social security, receiver of revenue etc. on file.

9.1.3 Skills, Technology and Development

During various phases of construction and operations, training will be provided to a portion of the workforce. Skills are transferred to an unskilled workforce for general tasks. Many technologies required for the development of the facility are new to the local industry, aiding in operational efficiency. Development of people and technology are key to economic development.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Technological development and transfer of skills	2	1	2	3	1	12	2	Probable
Daily Operations	Technological development and transfer of skills	3	1	2	3	2	28	3	Definite
Indirect Impacts	Economic development	3	1	2	3	3	32	3	Definite

Desired Outcome: To see an increase in skills in Rehoboth and the Region, as well as development and technology advancements in associated industries.

Actions

Enhancement:

- ◆ Skills development and improvement programs to be made available as identified during performance assessments.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Record should be kept of training provided.
- ◆ Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.

9.1.4 Demographic Profile and Community Health

Greater economic prosperity, as linked to the successful operations, may lead to a change in the demographic profile of the local community. Change may result from an influx of job seekers over time and further densification of the informal settlement of Rehoboth. Community structures may change with an increase in population while the economic profile will be adjusted as the employment structure of the area is changed. Community health may be exposed to factors such as communicable disease like HIV/AIDS and alcoholism/drug abuse. An increase in people in the area may potentially increase the risk of criminal and socially deviant behaviour such as vandalism

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Social ills related to unemployment and cross country transport	2	-1	1	1	2	-8	-1	Probable
Daily Operations	Social ills related to unemployment and cross country transport	2	-1	1	2	2	-10	-2	Probable
Indirect Impacts	The spread of diseases	3	-1	2	2	2	-18	-2	Probable

Desired Outcome: To prevent the occurrence of social ills and prevent the spread of diseases such as HIV/AIDS.

Actions:

Prevention:

- ◆ Employment of local people from the area will prevent in-migration and the social ills that may accompany this.
- ◆ Adhere to all municipal by-laws relating to environmental health which includes but is not limited to sand and grease traps for the various facilities and sanitation requirements.
- ◆ Ensure sanitation facilities and all related sanitation requirements are available and maintained at the abattoir for all employees.
- ◆ Appointment of reputable contractors.
- ◆ Educational programmes for employees on HIV/AIDs and general upliftment of employees' social status.

Mitigation:

- ◆ Educational programmes for employees (especially truck drivers) on HIV/AIDs and general upliftment of employees' social status.
- ◆ Appointment of reputable contractors.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Facility inspection sheet for all areas which may present environmental health risks, kept on file.
- ◆ Proof of educational programmes and training conducted on file.

9.1.5 Employment

An increase of skilled and professional labour will take place due to the operations of the facility. Employment will mainly be sourced locally while skilled labour/contractors may be sourced from other regions.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Employment and contribution to local economy	2	1	2	2	2	12	2	Definite
Daily Operations	Employment contribution to local economy	3	1	3	3	2	24	3	Definite
Indirect Impacts	Decrease in unemployment, increase in revenue generated	3	1	3	3	2	24	3	Definite

Desired Outcome: Employment to local Namibians and remuneration of temporary and permanent employees as per the Labour Act. Continued contributions to social security.

Actions

Mitigation:

- ◆ The Proponent must employ local Namibians where possible.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Employee records and financial contributions to the various institutions such as social security, receiver of revenue, etc., on file.

9.1.6 Health, Safety and Security

Activities associated with operations and maintenance / construction are reliant on human labour and therefore health and safety risks exist. Activities such as the operation of slaughtering equipment (knives, saws, steel hooks, etc.), cold rooms, vehicles and machinery, as well as handling of hazardous chemicals pose risks to employees. A dedicated first aid room will be present on site.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Physical injuries, exposure to chemicals and criminal activities	1	-2	3	3	1	-14	-2	Probable
Daily Operations	Physical injuries, exposure to chemicals and criminal activities	2	-2	3	3	2	-32	-3	Probable

Desired Outcome: To prevent injury, health impacts and theft.

Actions

Prevention:

- ◆ All health and safety standards specified in the Labour Act should be complied with.
- ◆ All industry specific health and safety procedures and regulations applicable should be in place and adhered to, this should include a food handler's medical survey programme.
- ◆ Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes:
 - maintain a functioning first aid room;
 - operational, safe work, first aid and medical procedures;
 - permit to work system for dangerous work;
 - job hazard analysis and standard operating procedures where required;
 - emergency response plans and drills;
 - lockout tagout protection when servicing or maintaining potentially dangerous equipment;
 - housekeeping programmes;
 - MSDS's and signage requirements (PPE, flammable etc.);
 - a medical surveillance program;
- ◆ Selected staff should be trained in first aid and first aid kits must be readily available together with the contact numbers for emergency ambulance and professional medical services (part of the first aid room).
- ◆ All relevant staff should receive adequate training on hygiene in the working environment and on the correct methods of executing their respective tasks and handling of equipment (specifically dangerous equipment such as electrical saws, high pressure equipment (compressed air), boilers, etc.).
- ◆ Clearly label dangerous and restricted areas as well as dangerous equipment and products. These include the slaughtering area, ammonia compressor room, boilers, the chemical store, fuel storage area. Clearly indicate compulsory personal protective equipment (PPE) requirements for specific areas.
- ◆ Provide all relevant employees with required and adequate PPE.
- ◆ Identify trip hazards and remove where possible. Where such structures form part of the required operational infrastructure, they should be painted in bright or distinguishable colours.
- ◆ Non-slip floors, especially in slaughtering and meat handling area.
- ◆ Safety procedures and training must be in place for working at heights.

- ◆ Educate employees and have emergency procedures in place for thermal (e.g. steam) and chemical (e.g. ammonia) burns.
- ◆ Staff to be informed on responsible knife handling to not only prevent injuries to themselves, but also to other employees (e.g. when walking with knife in hand).
- ◆ Develop and maintain an infrastructure, machinery and tools register for the abattoir inclusive of a maintenance and inspection schedule, this should include driven machinery, fuel storage, chemical storage, etc.
- ◆ A *Legionella* risk assessment and management plan should be compiled which includes inspection and analysis of water sources potentially containing *Legionella* spp.
- ◆ Ensure legal appointments, of appropriately qualified and trained personnel, are in place for all necessary maintenance and specialised operational activities.
- ◆ The abattoir must have emergency plans to deal with diseased animals that may be found among livestock delivered and kept in lairages prior to slaughtering. This includes the design and planning for isolation pens and mass disposal areas.
- ◆ Staff must be regularly trained in procedures pertaining to containment of disease outbreaks and destruction and disposal of diseased animals.
- ◆ Ammonia has a strong smell and leaks are typically quickly detected by smell only. However, leak detectors should be considered since personnel will not always be present in the compressor rooms.
- ◆ Staff should be educated / trained on human wildlife conflict management and not to confront wild animals or other potentially venomous / dangerous animals that may be encountered on site.
- ◆ Security procedures and proper security measures must be in place and equipment and goods must be locked away on site or be placed in a way that does not encourage criminal activities (e.g. theft). Lighting used at night should be adequate for security purposes.

Mitigation:

- ◆ Report any injuries or incidents to the appropriate manager and take appropriate action (e.g. first aid, transport to medical facility, etc.).
- ◆ Implement mental awareness programs specifically related to the continued slaughtering process' risks to employees' psychological and behavioural patterns including coping mechanisms.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Health and safety management system.
- ◆ Any health, safety and security incidents must be recorded with remedial action taken and actions to prevent future occurrences.
- ◆ Record all health, safety, and security related incidents reported with actions taken to address such incidents. Include dates when training were conducted and when safety equipment and structures were inspected and maintained.

9.1.7 Fire

Failing electrical infrastructure, maintenance and construction activities, incorrect chemical storage, boiler operations, ammonia leaks, etc. all can result in accidental fires.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Fire and explosion risk	2	-2	2	2	1	-20	-3	Improbable
Daily Operations	Fire and explosion risk	2	-2	2	2	2	-24	-3	Probable

Desired Outcome: To prevent property damage and possible injury and impacts caused by uncontrolled fires.

Actions:

Prevention:

- ◆ Prepare a holistic fire protection, prevention and response plan. This plan must include evacuation plans and signage, an emergency response plan and a firefighting plan.
- ◆ Personnel training (safe operational procedures, firefighting, fire prevention and responsible housekeeping practices).
- ◆ Maintain firefighting equipment at approved intervals and keep a maintenance register.
- ◆ Ensure good housekeeping to reduce fire risks associated with accumulated waste materials, dry vegetation, etc.
- ◆ Maintain a fire break of suitable width along the perimeter of the property to ensure a fire originating at the abattoir do not spread to the surrounding veld and vice versa.
- ◆ No open fires to be allowed on site (e.g. for cooking) except at designated areas and with the necessary approval from management.
- ◆ No fires may be ignited with the intent to clear vegetation or burn garden waste on site without managements consent. If planned burns are contemplated, all measures to prevent the spread of fire into the veld and nearby properties must be in place including firefighting equipment and personnel. No general, slaughterhouse or hazardous waste should be burned on site.
- ◆ Ensure the relevant authorities are notified if the powerline servitude must be maintained and vegetation removed to prevent elevated fire risks.
- ◆ Ensure all fuel and chemicals, including ammonia, are stored and handled according to MSDS and SANS instructions.
- ◆ The compressor room must have an emergency response plan specific to ammonia related fire risks if leaks or accidental release of ammonia occur. This could include explosive proof lighting, extractor fans, PPE and water hoses with water diffusing nozzles. Water absorbs ammonia vapour if sprayed by a fine mist or droplets of water. Refer to MSDS and SANS 10147.
- ◆ See sections 9.1.6 and 9.1.8 for ammonia leak detection.
- ◆ Have an electrical maintenance / service and inspection plan in place, this should include; regular inspections on high and low voltage reticulation systems; annual infrared scans on all main distribution boards and electrical equipment; annual earth leakage tests, transformer management plan and legal appointments of responsible, qualified personnel.

Mitigation:

- ◆ Implement the fire response plan in the event of a fire and notify neighbours in case of potential spreading of a fire to nearby properties.
- ◆ Quick response time by trained staff will limit the spread and impact of fire.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ In-house fire protection, prevention and response plan which will be approved by the Town Council's Fire Department.
- ◆ Keep record of any fire related incidents and actions taken to ensure that such incidents do not repeat themselves.
- ◆ Maintain fire equipment testing and servicing schedule.

9.1.8 Air Quality– Odours, Gas Emissions and Dust

The abattoir will include operations of a hot water boiler and various hydrocarbon fuelled trucks and vehicles will visit the site. Some emissions will be produced that will contribute to greenhouse effect. Some dust will result from construction activities and traffic in the area. No effluent treatment in effluent ponds or similar is planned for the immediate future, thus no odours related to effluent is expected. However, if biological waste is not disposed of timeously, or various structures are not cleaned regularly, odours can result from rotting materials.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Delivery of equipment and building supplies - vehicle emissions	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Burning of hydrocarbon fuels – vehicle and boiler emissions. Rotting biological waste.	2	-1	2	2	2	-12	-2	Probable

Desired Outcome: To prevent any nuisance and reduce emissions.

Actions

Prevention:

- ◆ Good housekeeping is essential not only to stop odours from developing, but also to ensure hygienic conditions.
- ◆ The boiler must use clean fuels free of heavy metals and toxic wastes.
- ◆ The boiler stack should be high enough to prevent ground level concentrations of pollutants from reaching undesirable levels (refer to International Finance Corporation / World Bank: General Environmental, Health, and Safety Guidelines: Environmental Air Emissions and Ambient Air Quality)
- ◆ Adopt strategies to reduce odours from the livestock lairages. These can include:
 - Scraping and removing the manure for disposal, then washing down using low volume high pressure water spray as soon as possible after sheep leaves the lairage.
 - If sheep remain in the lairages for longer periods, manure should be collected and disposed of daily.
- ◆ The hides store should be well ventilated and hides removed timeously.
- ◆ Ammonia has a strong smell and leaks are typically quickly detected by smell only. However, leak detectors should be considered since personnel will not always be present.

Mitigation:

- ◆ Compressor rooms and ammonia storage rooms, if not well ventilated, must have extractors in case of leaks or accidental ammonia releases.
- ◆ Dust suppression to be conducted if required during earthworks (e.g. digging pits at landfill, maintaining effluent ponds, etc.)

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Keep record of complaints received and actions taken to address complaints and prevent future occurrences.

9.1.9 Noise

The multifaceted operations of an abattoir involve various systems and machines which will generate noise of various intensity. These include compressors, pressure washers, electrical saws, etc. Maintenance and construction activities may cause temporary elevated noise levels. Noise impacts will be limited to workers and visitors present on site as no other receptors (neighbours) are present near the facility.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive noise generated from construction activities – nuisance and hearing loss	2	-1	2	2	1	-10	-2	Definite
Daily Operations	Noise generated from the operational activities – nuisance and hearing loss	2	-1	2	2	2	-12	-2	Definite

Desired Outcome: To prevent any nuisance and hearing loss due to noise generated.

Actions

Prevention:

- ◆ For various components of the abattoir and surroundings, adhere to the applicable prescribed noise levels as contained in:
 - *Labour Act, 1992: Regulations relating to the health and safety of employees at work*
 - *European Union noise standards for abattoirs.*
 - *World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999).*
- ◆ All machinery and vehicles must be regularly serviced and lubricated where applicable to ensure minimal noise production.
- ◆ Where relevant, install mechanical equipment on mounts designed to isolate structure-borne vibration and noise.
- ◆ All ventilation and extractor fans should be noise efficient or fitted with silencers, if required.

Mitigation:

- ◆ Follow recommendations from occupational hygiene survey regarding occupational exposures and mitigation which may include noise barriers such as screens around noisy equipment and operations and hearing protectors as standard PPE for workers in situations with elevated noise levels.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Labour Act, European Union standards and WHO Guidelines.
- ◆ Report on complaints received regarding noise and actions taken to address complaints and prevent future occurrences.

9.1.10 Liquid Waste–Industrial Waste Water

Industrial waste water to be managed on site consists of wash water from the slaughtering, processing and cold storage areas, wash water from the lairages and truck washing area, blood, excrement, cleaning chemicals, and slaughterhouse wastes. If the liquid waste stream is not managed effectively (e.g. preventing excessive blood from entering) it can have negative impacts on the Town Council's effluent treatment ponds' efficiency. The overall contribution of effluent to the Town Council's treatment plant is expected to be less than 2%.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Impacts on effluent treatment ponds of the Town Council	2	-2	3	2	2	-28	-3	Probable

Desired Outcome: To reduce the amount of industrial waste water produced, and to adequately remove solids, fat and blood from waste water to prevent impacts on the Town Council's effluent treatment facilities.

Actions

Prevention:

- ◆ Develop and implement an effluent management plan, this should include waste water reduction initiatives and regular inspection and maintenance of wastewater reticulation infrastructure.
- ◆ All foreign material must be collected and prevented from entering the wastewater stream.
- ◆ Regular monitoring and periodic cleaning of sumps and screens.
- ◆ No effluent may be released (accidentally or purposefully) into the environment.

Mitigation:

- ◆ To reduce effluent volumes the following should be considered:
 - Operators should be trained in water conservation and water usage monitoring.
 - Use high pressure low volume water hoses to minimise the amount of water required for cleaning operational areas.
 - Water used for general washing must be pressurized.
 - Cold water must be used to clean surfaces soiled with blood (except periodic deep cleaning at the end of the day) as the use of hot water causes congealing of the blood, making cleaning more difficult, thus resulting in unnecessary wastage of water.
 - All hoses must be fitted with self-closing nozzles to prevent wastage when not in use. Where the hoses are frequently used, pistol grips must be used.
 - All hoses, fittings and connections must be leak free and replaced if leaks are detected.
 - Slaughterhouse waste and manure in the lairages can be dry swept and removed prior to the areas being washed.
- ◆ Biodegradable cleaning materials should be investigated to limit impacts on the effluent ponds and the environment.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Maintenance schedule of the wastewater reticulation system should be kept on file.

9.1.11 Solid Waste Production

Solid waste can be dung from the lairages, slaughterhouse wastes or it can be waste originating from kitchens, offices, etc. Maintenance waste can include discarded or obsolete equipment. Some wastes can be dangerous / hazardous such as diseased animal carcasses, obsolete or expired chemicals, contaminated fuels or chemicals, etc.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Excessive waste production, littering, illegal dumping, contaminated materials	1	-2	2	2	2	-12	-2	Definite
Daily Operations	Excessive waste production, littering, contaminated materials	1	-2	3	2	2	-14	-2	Definite

Desired Outcome: To reduce the amount of waste produced, and prevent pollution and littering.

Actions

Prevention:

- ◆ Develop and implement a waste management program, this should include waste reduction and recycling initiatives and regular inspection and maintenance of waste storage and disposal areas.
- ◆ All employees should be educated on proper waste handling and disposal and importantly on the segregation of waste according to the different waste streams and their appropriate disposal locations.
- ◆ Ensure adequate temporary waste storage facilities are available that prevents waste being blown away by wind and prevent scavenging (human and non-human) of waste.
- ◆ All biological waste that are collected by third party contractors must be collected on a daily basis to ensure hygienic conditions and that such wastes do not accumulate on site and attract vermin.
- ◆ All hazardous materials, including chemical container disposal, should be conducted as per their MSDS instructions.
- ◆ Should any buildings or structures be decommissioned, all waste and infrastructure should be disposed of at a pre-approved landfill site.
- ◆ See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers. All hazardous waste chemicals containers requiring a triple rinse system for disposal purposes, should have the rinse water collected in a separate system and not disposed of into the oxidation ponds unless approved as per a chemical and biological assessment of the ponds and related interaction with the hazardous chemicals.

Mitigation:

- ◆ Waste should be disposed of regularly.
- ◆ Liaise with the local authority regarding waste and handling of hazardous waste.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.

- ◆ Any complaints received regarding waste should be recorded with notes on action taken.

9.1.12 Ecosystem and Biodiversity Impact

The facility was established many years ago but will be upgraded. Operational areas around the abattoir are devoid of vegetation. Infrastructure may provide opportunities for animals to take refuge or build nests. Vermin may be attracted if waste is not discarded timeously.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Impact on fauna and flora. Loss of biodiversity	1	-1	3	2	2	-7	-1	Improbable
Daily Operations	Creation of habitat for animals and attraction of vermin	2	-1	3	2	2	-14	-2	Probable

Desired Outcome: To avoid pollution of and impacts on the ecological environment.

Actions.

Prevention:

- ◆ Educate all contracted and permanent employees on the value of biodiversity.
- ◆ Disciplinary actions to be taken against all employees failing to comply with contractual conditions related to poaching and the environment.
- ◆ All fuel and chemical storage to be conducted as per relevant SANS or MSDS instructions to prevent ecological damage.
- ◆ Birds should be deterred from nesting on infrastructure.
- ◆ Regular monitoring of the powerline for bird strikes and nesting. For the powerline the relevant authority needs to be informed of such events.

Mitigation:

- ◆ Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ All information of extraordinary ecological sightings to be recorded.

9.1.13 Groundwater, Surface Water and Soil Contamination

Groundwater is utilised in the area with the Proponent having their own borehole on site. Contamination of groundwater can occur should untreated or partially treated effluent (sewage and industrial), biological waste (e.g. washwater from lairages, chemicals or fuels from the abattoir seep into the soil and ultimately the groundwater. The presence of the borehole near the planned cattle lairages is specifically a concern should dung, urine and lairage wash water be allowed to infiltrate the soil near the borehole.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Contamination from hazardous material spillages and leaks	2	-1	2	2	1	-10	-2	Probable
Daily Operations	Contamination from hazardous material spillages and leaks	2	-1	3	2	1	-12	-2	Probable

Desired Outcome: To prevent the contamination of surface and groundwater.

Actions

Prevention:

- ◆ See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers. All hazardous waste chemicals containers, requiring a triple rinse system for disposal purposes, should have the rinse water collected in a separate system and not disposed of into the effluent treatment stream.
- ◆ Proper training of employees and of operators of machinery and vehicles must be conducted on a regular basis (fuel and chemical handling, spill detection, spill control).
- ◆ All machinery and vehicles should be properly maintained to be in a good working condition during operations.
- ◆ Employ drip trays and spill kits when servicing / repairs of equipment are needed.
- ◆ Standard operating procedures should be developed and implemented for the use of hazardous materials.
- ◆ All hazardous chemical should be stored in a sufficiently bunded area and a register maintained of all such chemicals and their volumes.
- ◆ Fuel storage and handling according to SANS standards including storing fuel in a closed bunded area and the use of drip trays or spill proof surfaces where fuel is handled. The bunded area should only be drained after rain events once it is assured no fuel is present or after any fuel present is removed (oil / water separator).
- ◆ All biological and liquid wastes should be prevented from entering the environment and washwater at the lairages must be handled as waste that may not be allowed to flow into the environment.
- ◆ The borehole must be sanitary sealed to prevent contaminants from entering the groundwater via the borehole.

Mitigation:

- ◆ Spill clean-up means must be readily available on site as per the relevant MSDS for all chemicals and fuels.
- ◆ Any fuel spillage of more than 200 litres must be reported to the Ministry of Mines and Energy.
- ◆ The fuel storage bund area must be cleaned if any fuel products are present and this waste must be disposed of at a suitably classified hazardous waste disposal facility.
- ◆ Groundwater monitoring and corrective action if water quality deteriorates.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Potable water standards stipulated by the DWA must be used as a baseline for comparative analyses to monitor potential groundwater contamination by the activities.
- ◆ Keep record of all spills or leakages of hazardous or polluting substances, inclusive of date and duration of spill, product spilled, volume of spill, remedial action taken.

9.1.14 Water Supply

Water usage is minimal between slaughtering events but relatively large volumes are required during slaughtering. Water use is however not expected to impact on any nearby users, but water saving remains paramount in a dry country like Namibia. Interruptions in freshwater supply to the abattoir will negatively impact operations of the abattoir. Poor quality water may have health impacts.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Daily Operations	Water wastage and interruptions in supply	2	-2	3	2	2	-18	-3	Probable

Desired Outcome: To utilise water sustainability and ensure an adequate supply of water.

Actions

Prevention:

- ◆ The abattoir must have suitable water storage on site to ensure a sufficient volume of water for animal watering and cleaning purposes are available in the eventuality that a water supply interruption occurs during a slaughtering event. Slaughtering of animals only to commence when proven water supply is available.
- ◆ The water must be clean, potable and free of suspended material and substances which could put health at risk.

Mitigation:

- ◆ Develop and implement a water management programme, which includes water use reduction measures, monitoring of water utilised and consumption volumes and regular inspections and maintenance of the water reticulation system.
- ◆ Periodic testing of water from the onsite water reservoir to determine quality and microbial proliferation problems.
- ◆ Should the water storage tank be contaminated, sterilisation, flushing and cleaning of the tank should be performed as appropriate.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Record water use statics and water quality monitoring results.

9.1.15 Visual Impact

This impact is not only associated with the aesthetics of the site, but also the structural integrity of infrastructure. Operations will require cleaning of the entire slaughtering facility after each slaughtering event. The upgrade of the facility will have a positive visual impact compared to the status quo.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Aesthetic appearance and integrity of the site	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Aesthetic appearance and integrity of the site	1	1	2	2	2	6	1	Definite

Desired Outcome: To minimise aesthetic impacts associated with the facility.

Actions

Prevention:

- ◆ Regular waste disposal and clearing of wastes on the entire premises.
- ◆ Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures is maximised and a low visual impact is maintained.
- ◆ The minimum lighting required to ensure adequate security and a safe environment should be used at night and it must be directed downwards as far as is practically possible to not become a nuisance to current and future neighbours.

Responsible Body:

- ◆ Proponent
- ◆ Contractors

Data Sources and Monitoring:

- ◆ Keep record of complaints received and actions taken.

9.1.16 Traffic

Operations of the abattoir will increase traffic flow on the B1 Highway and potential incidents and accidents at the turnoff to the abattoir. Slow moving traffic and trucks traveling to the abattoir uses the B1 Highway and increases collision risks. The impact is expected to be limited as approximately six trucks will visit the abattoir per day during the first phase while about 12 will visit once fully developed.

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	Delivery of equipment and building supplies	1	-1	2	2	2	-6	-1	Probable
Daily Operations	Increase traffic, road wear and tear and accidents	2	-1	3	2	2	-14	-2	Definite

Desired Outcome: Minimum impact on traffic and no transport or traffic related incidents.

Actions

Prevention:

- ◆ All vehicles owned by the Proponent to operate within the Traffic and Transport Act regulation, specifically also in the term of roadworthiness.
- ◆ Trucks delivering or collecting goods should not be allowed to obstruct any traffic in surrounding areas.

Mitigation:

- ◆ If any traffic impacts are expected, traffic management should be performed to prevent these.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ The Road Traffic and Transport Regulations, 2001
- ◆ Record complaints received regarding traffic (directly associated with the abattoir) with action taken to prevent impacts from repeating itself.

9.1.17 Cumulative Impact

Possible cumulative impacts associated with the operational phase and any maintenance / construction activities are mainly linked to employment (positive impact) and pollution, water demand, traffic and greenhouse gas emissions (negative impacts).

Project Activity / Resource	Nature (Status)	(A1) Importance	(A2) Magnitude	(B1) Permanence	(B2) Reversibility	(B3) Cumulative	Environmental Classification	Class Value	Probability
Construction	The build-up of minor impacts to become more significant	2	-1	2	2	1	10	-2	Probable
Daily Operations	The build-up of minor impacts to become more significant	2	-1	3	2	1	-12	-2	Probable

Desired Outcome: To minimise all cumulative impacts associated with the facility.

Actions

Mitigation:

- ◆ Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.

Responsible Body:

- ◆ Proponent

Data Sources and Monitoring:

- ◆ Review all records kept in order to detect any new or re-occurring impacts or problems (cumulative impacts) and reconsider existing prevention and mitigation measures where cumulative impacts are present.

9.2 DECOMMISSIONING AND REHABILITATION

Decommissioning is not foreseen during the validity of the environmental clearance certificate. Decommissioning was however assessed as construction activities include modification and decommissioning. Should decommissioning occur at any stage, rehabilitation of the area may be required. Decommissioning will entail the complete removal of all infrastructure including buildings and underground infrastructure not forming part of post decommissioning use. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within Labour Act and WHO standards (as applicable) and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas. Future land use after decommissioning should be assessed prior to decommissioning and rehabilitation initiated if the land would not be used for future purposes. The EMP for the facility will have to be reviewed at the time of decommissioning to cater for changes made to the site and implement guidelines and mitigation measures.

9.3 ENVIRONMENTAL MANAGEMENT SYSTEM

The proponent could implement an Environmental Management System (EMS) for their operations. An EMS is an internationally recognized and certified management system that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS would need to include the following elements:

- ◆ A stated environmental policy which sets the desired level of environmental performance;
- ◆ An environmental legal register;
- ◆ An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- ◆ Identification of environmental, safety and health training needs;
- ◆ An environmental program(s) stipulating environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy;
- ◆ Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS; and
- ◆ The EMP

10 CONCLUSION

Upgrading of the existing Reho Abattoir will see a significant improvement in the existing facility in terms of aesthetics (visual impact), animal welfare, working conditions, environmental protection and operational efficiency. The operations of Reho Abattoir will have a positive impact on the economy of Rehoboth and Namibia as a whole. Through the export of beef, contribution is made towards positive trade balance for Namibia. Employment will be provided to the local workforce and training and skills transfer will take place. Various business will be supported through outsourcing of specific activities (goods and services delivery), during both the construction and operational phases.

Regulations related to abattoirs as prescribed by Namibian law and the meat export industry, must be followed during the planning, upgrade and operations of the facility. The necessary permits and approvals must be obtained from the relevant ministries and authorities. All hazardous substances should be handled and stored according to MSDS requirements which may include storage in bunded areas with sufficient spill containment infrastructure and segregation of incompatible products. Noise pollution should at all times meet the prescribed Labour Act, European standards for abattoirs, and WHO requirements to prevent hearing loss and minimise nuisance. Fire prevention should be adequate, and health and safety regulations should be adhered to in accordance with the regulations pertaining to relevant laws and internationally accepted standards of operation. Any waste produced must be removed from site and disposed of at an appropriate facility or re-used or recycled where possible. Hazardous waste (including biological waste) must be disposed of at an approved hazardous waste disposal site.

The EMP (Section 9) should be used as an on-site reference document for the operations of the facility. Parties responsible for transgressing of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The Proponent uses a food safety management system based on Hazard Analysis and Critical Control Point (HACCP) principles and could use an in-house health, safety, security and environment management system in conjunction with the EMP. All operational personnel must be taught the contents of these documents.

11 REFERENCES

Atlas of Namibia Project. 2002. Directorate of Environmental Affairs, Ministry of Environment and Tourism (www.met.gov.na). [Accessed from http://www.unikoeln.de/sfb389/e/e1/download/atlas_namibia/index_e.htm]

Burmeister & Partners Consulting Engineers. 2023. Rehoboth Abattoir Effluent Disposal Report. Burmeister & Partners (Pty) Ltd, Windhoek.

Funk, C., Peterson, P., Landsfeld, M., Pedreros, D., Verdin, J., Shukla, S., Husak, G., Rowland, J., Harrison, L., Hoell, A. and Michaelsen, J., (2015) The climate hazards group infrared precipitation with stations - A new environmental record for monitoring extremes. *Scientific Data*, 2, 150066. <https://doi.org/10.1038/sdata.2015.66>

https://mesonet.agron.iastate.edu/sites/dyn_windrose.phtml?station=FYRH&network=NA__ASOS&bin0=2&bin1=5&bin2=7&bin3=10&bin4=15&bin5=20&units=mps&nsector=16&fmt=png&dpi=100&year1=2009&month1=1&day1=1&hour1=0&minute1=0&year2=2022&month2=11&day2=17&hour2=0&minute2=0

Namibia Statistics Agency. Namibia 2011 Population and Housing Census Main Report.

Namibia Statistics Agency. Namibia household Income and Expenditure Survey 2009/2010.

Pastakia, C.M.R.; 1998; The Rapid Impact Assessment Matrix (RIAM) – A new tool for Environmental Impact Assessment.

Appendix A: Proof of Public Consultation

Town Council Notification



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29 August 2022

To: Interested and Affected Parties

Re: Environmental Scoping Assessment and Environmental Management Plan for the Operations of Reho Abattoir, Rehoboth.

Dear Sir/Madam

In terms of the Environmental Management Act (No 7 of 2007) (EMA) and the Environmental Impact Assessment Regulations (Government Notice No 30 of 2012), notice is hereby given to all potential interested and/or affected parties (IAPs) that an application will be made to the Environmental Commissioner for an environmental clearance certificate (ECC) for the following project:

Project: Environmental Scoping Assessment and Environmental Management Plan for the Operations of Reho Abattoir, Rehoboth.

Proponent: Reho Abattoir (Pty) Ltd

Environmental Assessment Practitioner: Geo Pollution Technologies (Pty) Ltd

Reho Abattoir is located approximately 1.3 km south of Rehoboth. Current operations entail the slaughtering of lamb, sheep and cattle sourced from Namibian farms. The principal operational activities include the receipt of livestock, slaughtering of livestock, portioning of some carcasses, cold storage of all meat products and shipment of meat to clients. The Proponent intends to upgrade the facility to increase the slaughtering capacity of the abattoir and related infrastructure to ultimately be able to slaughter 70 heads of cattle and 250 heads of sheep per day.

Geo Pollution Technologies (Pty) Ltd was requested to conduct an environmental assessment for the project. The assessment is required in terms of the EMA and will be conducted according to the EMA regulations as published in 2012. As part of the assessment, we consult with IAPs who are invited to register with the environmental consultant and to receive further documentation and communication regarding the project. By registering, IAPs will be given an opportunity to provide input that will be considered in the drafting of the environmental assessment report and its associated management plan.

Registration details and comments should reach Geo Pollution Technologies by 20 September 2022.

To register, please contact: Email: gpt@thenamib.com Fax: 088-62-6368

Should you require any additional information please contact Geo Pollution Technologies at telephone 061-257411.

Thank you in advance.

Sincerely,

Geo Pollution Technologies

André Faul
Environmental Scientist



Page 1 of 2

Directors:

P. Botha (B.Sc. Hons. Hydrogeology) (Managing)

Press Notice: The Namibian Sun 6 and 13 September 2022

4 TUESDAY 6 SEPTEMBER 2022
NEWS

Sun

• ROUTES NOT COMPETITIVELY PRICED

Lack of competition in air travel questioned

Prior to its liquidation, Air Namibia reportedly received N\$6 billion in budgetary transfers from government to keep it flying since 1998.



ABSENCE FELT: Tourism and aviation industry players say Air Namibia has left a notable void. PHOTO: FILE

OGONE TU-HAGE
WINDHOEK

Namibia Tourism Board managing director Digu //Naobeb says the gap left by former flag carrier Air Namibia has given rise to steep prices charged by players in the aviation space.

He had been asked how the absence of Air Namibia has affected air travel in and out of Namibia as well as domestically following its liquidation last year by government.

"We lost an airline and the routes are not competitively priced. We had competitive pricing, but if you compare flying and fuelling domestically, the cost is not justifiable, the only justification would be time to travel."

//Naobeb added that Air Namibia had also aided government objectives as the nation's flag carrier.

"It assisted government in achieving its objectives. Airlines operating commercially do not have an objective to support government's objectives," he said.

Unused routes

Namibia Airports Company CEO Bisey Ilu'rab said the airline's departure will mean many routes either under- or completely incapacitated.

"Air Namibia's disappearance coincided with the Covid-19 pandemic, and has certainly affected us negatively in terms of passenger numbers and movements. Some of the domestic routes that were covered by Air Namibia remain un-served or under-served to this day," he said.

A burden

Meanwhile, Hospitality Association of Namibia (HAN) CEO Gitta Pätzold said Air Namibia was a burden on government.

"While it was always good to have a national airline for marketing and image purposes, as the presence of 'Namibian wings' at international airports such as in Europe and South Africa was impactful, it simply proved to be financially un-bearable."

The entry of players into Namibia's aviation sector was a boon for business and tourism, she said, as Namibians are exposed to greater options to connect to major international hubs.

"Fortunately, given Namibia's popularity as a destination, airlines such as Eurowings Discover, Ethio-

pian Airways and now Qatar filled the void left by Air Namibia and even extended their capacity to the extent that for the first time ever, an airline even runs 10 flights per week to our main tourism source market in Europe.

"While it still remains sad to see Air Namibia go, the service and marketing efforts of all the other airlines to sell their routes to and from Namibia compensate well for the loss of the national carrier, while the financial burden is shared by them and state coffers are relieved of this responsibility," she added.

Billion-dollar bailouts

Government liquidated the 75-year-old airline in March 2021, citing its insolvency as one of the key reasons. The decision resulted in close to 700 jobs lost, and left government footing a N\$2.5 billion guarantee to United States-based leasing company Castlelake.

Prior to its liquidation, the Institute for Public Policy and Research had estimated that Air Namibia received N\$6 billion in budgetary transfers from government to keep it flying since 1998.



Thoughts On Our Society

By Muthoni waKongola

Zambia is counting, while Namibia hibernates

COLUMN

Since Zambia's founding President Kenneth Kaunda left office in 1991, Zambia has hardly captured widespread international attention.

Over the past 31 years since Kaunda's departure, Zambia has had a total of six presidents: Frederick Chiluba (1991-2002), Levy Mwanawasa (2002-2008), Rupiah Banda (2008-2011), Michael Sata (2011-2014), Guy Scott (2014-2015), Edgar Lungu (2015-2021), and now Hakainde Hichilema, who came into office last year.

Apart from Kaunda, who spent 27 years in office, only Chiluba spent more than seven years in office. Guy Scott was the shortest-serving Zambian president, being in office for only 89 days. Namibia has had three presidents since 1990. Mozambique is on its fourth president, while Angola is on its third president. Zimbabweans are on their second president.

These interesting and colourful political events hardly made international news.

Unexpectedly, Zambia has surfaced in international news since the takeover of President Hichilema. His immediate successes over his first few months in office are reported daily in mainstream media in southern Africa. International media in both the west and east have been captivated by Hichilema. The Guardian, one of the UK's mainstream newspapers, had this headline: "Crisis-hit Zambia secures US\$1.3bn IMF loan to rebuild stricken economy." ChinaDaily recently published a story titled "China ready to push ties with Zambia to higher levels." The examples of positive international coverage are countless.

The IMF loan led to positive news for Zambia and the Zambian kwacha. Bloomberg had this report on 1 September: "Zambia's kwacha is the world's best performer against the dollar on Thursday after the nation won long-awaited approval for a \$1.3 billion bailout from the International Monetary Fund."

Such international coverage was rare in Zambia's recent history. It is clear that HH, as President Hichilema is known, has brought a positive vibe to Zambia. The microscopes and spotlights have tilted toward Zambia.

What, then, can we see when we zoom in on Zambia during this positive episode? We were recently debating the population figures in the Zambezi.

Our constituency, Kongola, has the lowest population, at 5 658, while Katima Mulilo urban has the highest population at 28 362.

We wanted to assess if there are changes in our population, particularly with the return of our children following the unemployment crisis that has been exacerbated by the Covid-19 retrenchments.

We will never know beyond the observations we are making as a result of our subjective experiences. The census, the tool that would've assisted us, has been repeatedly postponed by the government that remains unconcerned about this state of affairs.

We are told that there is no money to conduct the census. What we are not told is what will happen and the efforts that will be undertaken to secure the funds. In the meantime, there was money for Heroes Day and Independence Day for both 2021 and 2022. Millions were spent.

Between the census and these celebrations, which one could be reasonably sacrificed? A census occurs every 10 years. One has 10 years to prepare for it.

Does this mean that over the past 10 years, the government did not plan for it? It is clear that the government is indifferent. It is for this reason that Obeth Kandjoze, director general of the National Planning Commission, under whose overall control the census exercise occurs, openly informed the public that Cabinet takes decisions on outdated data. Zambia is currently conducting its census. President HH has been actively campaigning on social media, urging Zambians to participate in the census and ensure that they are counted. The Namibian president is on social media pages discussing Liverpool. What a contrast. What President Geingob does not realise is that the longer the census is delayed, the more costly it will become.

It will no longer be N\$600 million. It will increase. When the census was scheduled to start in 2021, civil servants had not yet voted to go on strike and subsequently held the government at ransom.

Now they have done so. Government has succumbed to certain demands and made financial commitments.

Geingob must be introduced to Lao Tzu's literature to read this relevant advice: "Do the difficult things while they are easy and do the great things while they are small."

Muthoni waKongola is a native of Kongola in the Zambezi Region primarily concerned with analysing society and offering ideas for a better Namibia. She is reachable at wakongola@gmail.com or [@wakongola](https://twitter.com/wakongola) on Twitter.

Jehovah's Witnesses resume door-to-door visits

KENYA KAMBOWE
RUNDU

Namibia's Jehovah's Witnesses Church has resumed its door-to-door practice for the first time since March 2020, when it suspended the visits due to the onset of Covid-19.

This is according to Jehovah's Witnesses Namibia spokesperson, Tunana Hainana, who said that after 30 months of using alternative methods to spread the word of God, due to the pandemic and the measures imposed by government, they are back to conducting their trademark visits.

Hainana said last week.

Respect safety

More than 2 663 Jehovah's Witnesses reside in Namibia. Hainana said the Witnesses undertaking the visits will respect the wishes of people.

"To ensure the safety of all those who will be participating in house-to-house witnessing and the people they will meet, all Jehovah's Witnesses have been encouraged to respect individual choices on social distancing and following government regulations." Hainana said. Hainana said that the move back to house-to-house preaching comes at a time when Jehovah's Witnesses will embark on a special global campaign.

The campaign is a concerted effort for the entire month of September to offer Bible studies, using a new teaching tool and method of an interactive Bible course with a book titled 'Enjoy Life Forever'. This publication is translated into 10 of Namibia's local languages.

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<http://www.thenamib.com/projects/projects.html>

All interested and affected parties (IAPs) are invited to register with the environmental consultant. By registering you are provided with the opportunity to share any comments, issues or concerns related to the project, for consideration in the environmental assessment. Please register with, and provide comments to, Geo Pollution Technologies by 20 September 2022.

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ENGLAND IS THE ONLY
TEAM IN THE NORTHERN
HEMISPHERE TO WIN THE
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Ex-Swapo councillor shoots man in front of police

KENYA KAMBOWE
RUNDU

A former Swapo regional councillor in the Kavango West Region is expected to appear at the Kahenge Periodic Court this morning after he was arrested for shooting a man in the abdomen during an argument.

He shot the victim, who was allegedly employed by him, in the presence of four police officers, eyewitnesses claimed.

Kavango West police crime investigations coordinator, deputy commissioner Abner Agas, confirmed that the politician, who cannot be

named before his first court appearance, used a 9mm pistol to shoot the victim.

The victim, whose name has not yet been made public, is currently admitted at Rundu State Hospital. The former constituency councillor has been charged with attempted murder, contravening Section 38 of the Arms and Ammunition Act 7 of 1995, negligent handling of a firearm and discharging a firearm in a public place.

"I can confirm that it happened in the presence of police officers. I understand that the police were going to resolve the issue," Agas said. He added that the police officers did not know that the former councillor was armed.

Hand it over

According to the police report, the incident took place at around 18:40 on Sunday at Mayara village in the Nkurenkuru constituency. The victim was reportedly em-

ployed by the politician to operate a taxi he owns.

Namibian Sun is reliably informed that the argument erupted after the councillor asked his employee to hand over the car's keys. It is alleged that the victim refused, arguing that he was owed several months of outstanding wages. He allegedly argued that he would only return the keys once the money was paid. After the duo failed to reach an agreement, the accused reportedly asked the police for assistance.

Heated argument

Accompanied by police, the former councillor went to the victim's house, again demanding the keys back.

The victim refused despite the police presence. In response, it is alleged the councillor suddenly withdrew a firearm and shot his employee in the lower abdomen while in the presence

of the police. The shooter was arrested and detained at the Kahenge police station, pending today's court appearance.

The suspect allegedly faces prior charges and a court case also related to discharging a weapon in public.

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COMMITTEE SEEKS ANSWERS ON FAILED PROJECT

Judgment day for Katjaimo over UK trip

A committee formed to investigate the mastermind behind a trip to the Commonwealth Games - which never materialised - was not satisfied with some of Katjaimo's explanations because they "lacked key details".

MATHIAS HAUFJKU
WINDHOEK

The Popular Democratic Movement's (PDM) management committee will convene tonight to decide the fate of under-fire councillor Rodman Katjaimo.

The incumbent councillor of the Katutura Central constituency has over the past weeks failed to get rid of the alleged embezzling albatross hanging around his neck following a failed project.

It is alleged that some 198 Namibians paid about N\$65 000 each to travel to the United Kingdom (UK) to watch the Commonwealth Games last month.

The trip never got off the ground after UK immigration authorities blocked it. Some of the people didn't even leave the country while others were blocked at OR Tambo International Airport in Johannesburg.

Following an outcry from victims demanding refunds from Katjaimo, the party's reputation has been subsequently drawn into the mix of things, with the leadership accused of treating the councillor with kid gloves.

Some quarters of the party called on the leadership to suspend Katjaimo while investigations are underway, but this has not happened.

Instead, PDM president McHenry Venaani instructed secretary-general Manuel Ngarinombo to set up a committee to investigate the matter. The committee, chaired by Ngarinombo, also comprises of the party's two representatives in parliament - Maximilian Katjaimo and Hidipo Hamata. Former parliamentarian Esmeralda !Aebes also sits on the committee.



Manuel Ngarinombo
PHOTOS: CONTRIBUTED

Dodgy report

Namibian Sun understands the committee met with Katjaimo last week to hear his version and to receive his report on the matter.

The committee, party insiders say, was not satisfied with some of Katjaimo's explanations because they "lacked key details needed for them to make concrete recommendations".

These included documents such as payment receipts for flights and accommodation.

Katjaimo also did not inform the committee about the exact amount paid to him and how it was distributed.

Katjaimo told the committee he deemed it necessary

to organise the trip because "residents from Katutura Central constituency were interested in attending the event". The committee, however, asked Katjaimo to clarify whether he was asked to organise the trip or whether it was his own initiative.

The councillor further indicated in his report that the trip was organised under the auspices of the Katutura Central Supporters Club.

To this, the committee



Rodman Katjaimo

wanted to know: "Does the Katutura Central Supporters Club fall under the Katutura Central constituency office or is it a separate entity?"

The Namibian yesterday reported that Katjaimo used a regional council letterhead to canvas support from the British embassy. He sought information about the travelling protocols of Namibians en route to Britain.

Where's the money?

The committee also asked Katjaimo to answer whether some funds were paid into his personal bank account and whether such funds were eventually transferred to the club's bank account.

He was further asked to indicate whether he received remuneration in his personal

capacity emanating from the proceeds of the funds contributed by the public.

The committee is expected to present its report, containing recommendations on the way forward, to the management committee tonight.

Some party members have questioned the legitimacy of the committee, with others saying only the management committee has the power to institute ad-hoc structures of this nature, further claiming that Venaani has no vested powers to make such a call.

Efforts to get hold of Ngarinombo yesterday proved futile.

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Play letter quest every Tuesday and Wednesday to stay abreast with what's happening in your daily newspapers and WIN!

Join the quest to find the letters in our three publications - Republikein, Namibian Sun and Allgemeine Zeitung - unscramble the letters and you could win

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SM5 your answer, e.g. QUEST "WORD" to 51500. N\$ 3/5MS. Ts & Cs apply. All proceeds go to the African Child Development Trust. Winners will be contacted every Thursday. Winners are announced every Monday. Keep your newspaper in order to claim your prize. The winner will be asked to send a photograph of themselves with their newspaper, which will be featured in the following Monday's newspaper.



Ons Mense

yandi@republiek.com.na

» **Geen einde** aan Taylor Jaye se talente

Damara-meisie leef haar musiekdroom

As musikant, liedjieskrywer, aktrise, regisseur, filantroop, modeontwerper en sakevrou spog die veelsydige Taylor Jaye met 'n indrukwekkende CV.

Yandi du Plessis

Jaleesa 'n Gooses, beter bekend onder haar verhoognaam Taylor Jaye, het haar kinderjare by haar ouma in die informele woongebied Otjomuise deurgebring. Sy het later 'n groot deel van haar grootwordjare saam met haar ma tussen die VSA en Namibië deurgebring, maar is deesdae grootliks in Johannesburg, Suid-Afrika, gebaseer.

Taylor Jaye is sedert 2014 'n gekwalifiseerde sagteware- en netwerk-ingenieur, maar die mu-

siekoggogga het vroeg reeds gebly en in 2015 het sy besluit om haar musiekloopbaan voltyds na te jaag. Sy bring 'n unieke Namibiese flair na die elektriese genre - meestal Afropolitmes en Afro-pop - deur in haar moedertaal, Damara (Khoisan), te sing.

Hoewel sy hoofsaaklik vir dié elektriese klanke en aansteeklike ritmes bekend is, is sy ook 'n vernuftige sakevrou en het in 2018 'n vennootskap aangegaan met J&B Hive in Johannesburg, 'n destydse netwerk vir kreatiewe entrepreneurs.

Dié vennootskap was gegrond op haar eie platemaatskappy, Jaye's World Entertainment (JWE), se visuele inhoud onder haar regie. Sy is die kreatiewe en konseptuele regisseur van al haar musiekvideo's en visuele inhoud, asook dié van ander kunstenaars. Asof dit nie indrukwekkend genoeg is

nie, ontwerp Taylor Jaye ook al die klerewat in haar visuele inhoud te sien is - 'n talent wat nou in haar eie klerereeks floreer. Sy het ook haar staal as ontluikende aktrise gewys toe sy in gewilde Pan-Afrika TV-reekse soos Closets en 2019 se Unlocked verskyn het.

In 2020 het Taylor Jaye koning gekraai in die kategorie vir beste housemusiek by die jaarlikse Namibiese musiektoekennings (NAMA's).

Tevore is sy reeds verskeie kere benoem in kategorieë soos vroulike kunstenaar van die jaar. Sy het talle grensverskuivende enkelnitte vrygestel in samewerking met van die grootste kunstenaars en musikervervaardigers oraloor Afrika, soos Mr. Kamara en die Nigeriese musikant Patroranking op haar bekroonde enkelnit "Cashie". Sy het ook met talle ander prominente Afrika-kunstenaars saamgewerk, soos Busiswa, Uhuru, DJ Clap (Kalawa Jazzme) en Spikiri van die kwaito-groep Trompies.

Haar musiek het al speeltyd geniet op verskeie televisiekanale soos Trace Africa, Trace Naija, Trace Mziki, Channel O, MTV Base, Sound City en vele meer oraloor Afrika; asook op radiostasies in lande soos Namibië, Kenia, Tanzanië, Nigerië, Ghana, Suid-Afrika, Botswana en Zambië.

Met een van haar vorige albumprojekte het sy selfs kragte saamgespan met die Grammy-benoemde kunstenaar van Ghana, Stonebwoy.

KONTINENTALE VOETSPORE

Die musikant het al by gesogte geleenthede oraloor Afrika en verder opgetree.

Aan die einde van 2019 was sy die eerste Namibiër wat saam met die room van die Afrika-musiekbedryf soos Davido, Wizkid,

Tiwa Savage en Diamond Platnumz aan die gesogte One Africa-musiekfees in Dubai deelgeneem het.

Sy het ook op die verhoog by geleenthede soos Afrochella Ghana saam met kunstenaars soos Burna Boy en by All Africa Music Awards (AFRIMA) in Nigerië.

In Namibië is sy twee keer spesiaal deur me. Monica Genings, die presidentvrou, genoen om by haar liefdadigheidsdigting se geleentheid op te tree. Ander optredes het NAMA's-toekenningsgeleenthede en by talle geleenthede en toere in Suid-Afrika en Zimbabwe ingesluit.

Taylor Jaye het ook al op talle regstreekse televisie- en radioprogramme in Suid-Afrika en die res van die vasteland verskyn, soos Spanking New MTV, ETV, Morning Express, Nigeria Silverbird TV en East Africa Citizens TV - om 'n paar te noem.

In 2021 het sy en haar landgenoot Chin Chilla die eerste Namibiërs geword om by die ikoniese O2-venue in Londen in die Verenigde Koninkryk op te tree. Dié midde 'n toer deur dié deel van Europa waarmee sy in daardie stadium besig was.

Haar destydse Britse toer het verskeie eerstes gehad, insluitend dat sy die eerste Namibiese kunstenaar was wat genoen is na 'n episode van Tim Westwood TV, 'n YouTube-kanal met meer as 'n miljoen intekenaars. Hoewel dit steeds 'n hip-hop-episode was, was sy die eerste amapiano-kunstenaar op dié kanaal. Amapiano (Zoeloe vir "die klaviere") is 'n hibriede van diep house, jazz en kroegmusiek.

LIEFDADIGHEID

In 2018 het Taylor Jaye die First Ladies First Foundation (FLF) gestig, 'n inisiatief wat die stryd teen geslagsgeweld (GBV) ondersteun en daarop



As musikant, liedjieskrywer, aktrise, regisseur, filantroop, modeontwerper en sakevrou spog die veelsydige Taylor Jaye met 'n indrukwekkende CV. FOTO FACEBOOK

ENGLAND IS THE ONLY TEAM IN THE NORTHERN HEMISPHERE TO WIN THE RUGBY WORLD CUP.

gefokus is om vroue in die samelewing op te hef. FLF is gedurende Vrouemaand (Augustus) in Suid-Afrika van stapel gestuur en gedurende November in Namibië in samewerking met die presidentvrou se One Economy Foundation.

Dié stigting bied onder meer op 'n konstante basis finansiële hulp aan sekere begunstigdes.

Onder die FLF-vaandel bied Taylor Jaye ook talle vrouebemattingsgeleenthede aan en ondersteun verskeie kinders in beide Namibië en Suid-Afrika.

Gedurende die Covid-typerk het Taylor Jaye voortgegaan om individue en weeshuise in hul basiese behoeftes te ondersteun en terselfdertyd bewusheid te skep oor Covid-19. Laasgenoemde het sy onder meer benader deur 'n program op Instagram te begin om

onderhoude te voer met kunstenaars oraloor verskeie Afrikaanse sodat hulle hul ervarings kon deeloor die uitdagings wat deur die pandemie meegebring is, asook hoe hulle dit hanteer het.

Deur dié program het Taylor Jaye ook kospakke en kontantpryse weggegee om 'n helpende hand te wees vir dié wat dit nodig gehad het.

Taylor Jaye neem sedert 2019 deel aan die Ysheerduik (Polar Plunge) ter ondersteuning van Suid-Afrika se Spesiale Olimpiese Spele-organisasie. In 2020 het sy besluit om dit na Namibië te bring, nie net ter bewusmaking van die Spesiale Olimpiese beweging in Afrika nie, maar ook bewusmaking van gestremde individue wat steun benodig, veral tydens Covid-19.

Deur haar inisiatiewe het sy mense aangemoedig om die Namibia Disability Benefit Trust te ondersteun, waarmee sy met noue bande saamwerk om finansiële hulp aan gestremde individue in Namibië te bied.

MODEBAAS

Nadat sy Namibiërs 'n kykie van haar langverwagte klerereeks, Jaye Walker, by die Namibiese modeweek in 2020 gegee het, het sy haar eerste versameling genaamd "Genesis by Jaye Walker Enterprise" bekend gestel.

Die versameling is 'n viering van haar liefde vir kleur en wetenskap-fiksie, en al die kledingstukke en motiewe het sy self ontwerp. Saam met die klerereeks het sy haar aanlyn winkel (jaye-walkerenterprise.com) bekend gestel.

NUUS UIT AMERIKA

Een van haar hoogste loopbaanhoogtepunten was haar onlangse Amerikaanse toer, wat haar selfs na die Groot Appel - New York - genem het, vertel Taylor Jaye.

Dié toer het gevolg nadat haar bestuur se paaië gekruis het met dié van agente in die VSA wat musikante van Suider-Afrika daarheen wou bring.

"Ek het 'n paar maande gelede 'n Zoom-onderhoud met die Georgia Entertainment Association gehad en sedertdien het hulle met my span en ander agente begin werk om my hierdie kant toe te bring om op te tree en te toer en die Afrika-diaspora hierdie kant, maar ook die Amerikaanse mense, aan my handelsmerk bloot te stel," het sy uit die VSA vertel.

Volgens haar is Amerika elke kunstenaar se droombestemming.

"Elke musikant van oraloor die wereld wil 'n kans hê om in Amerika op te tree om uiteindeelik 'n vloek in die deur van die globale mark te kry. Hierdie is die eerste stap vir my om dit te doen. So ek voel goed. Ek voel trots. Ek voel my harde werk neem my in die regte rigting en ek vertrou God het groot planne."

Taylor Jaye hoop dié stap in haar lewe kan ander Namibiese kunstenaars inspireer en deure oopmaak vir dié wat in haar voetspore wil volg.

"Dit wys dat ons musiekbedryf tot meer in staat is." - yandi@republiek.com.na

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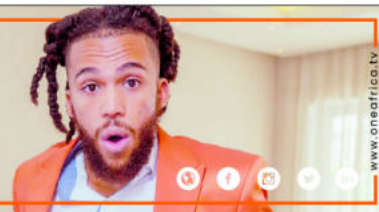
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Dinsdag 13 September 2022

Republiek

NUUS 3

Chaos oor grondbesetting op Katima

Kenya Kambowe

Die uitvoerende hoof van Katima Mulilo se dorpsraad, mnr. Raphael Liswaniso, het belowe om die "anargie-mentaliteit" wat oor die jare in dié dorp aan die broei is, uit te roei. Inwoners van die informele nedersetting Lwanyanda moes verlede Donderdag toekyk hoe 'n stootskrapeer hul huise vernietig nadat die dorpsraad en ontwikkelaar Kayuni Investments 'n hofbevel aangevra het om die inwoners wat op onwettige grondbesetting beskuldig word, uit te sit. Video's en foto's van die voorval het soos 'n veldbrand in die sosiale media versprei, maar die plaaslike owerheid hou vol die sloping van die huise was nodig aangesien onwettige grondbesetting in die dorp besig is om "handuit te ruk". Liswaniso het gesê die raad wil 'n



Katima Mulilo se dorpsraad se onwettige grondbesetting op die dorp is besig om "handuit te ruk". FOTO: VERSKAF

einde bring aan die anargie wat oor die jare heen geheers het. Die uitvoerende hoof het die afgelepe naweek aan ons susterkrant *Namibian Sun* gesê Lwanyanda is gebou op grond wat aan Kayuni Investments vir 'n behuisingprojek toegeken is. Dit is die tweede keer dat inwoners van Lwanyanda van dié grond verwyder moet word, het hy gesê en bygevoeg diegene wat dit in 2017

beset het, is ook uitgesit. Destyds is die kwessie aangevoer toe die raad die Nova-gebied gestig het en erwe op dié grond aan mense toegeken het. Hy het gesê terwyl die meerderheid hulle in Nova hervestig het, het 16 inwoners geweier om dit te doen. Liswaniso het diegene wat by Lwanyanda agtergebly het daarvan beskuldig dat hulle die grond on-

wettig bestuur, aangesien hulle erwe begin verkoop het aan grondlose mense wat na die gebied gestroom het, wat teen die Wet op Plaaslike Owerhede is, het hy bygevoeg. Dit het na bewering daartoe gelei dat die inwoners wat na Nova verhuis het, hul nuwe erwe óf verkoop óf verhuur het en teruggetrek het na Lwanyanda.

'ONS SAL OP HIERDIE GROND STERF'

Liswaniso het verder opposisiepolitici daarvan beskuldig dat hulle grondgrypery aanhous. "Hulle sé vir mense die enigste manier om grond in die Swapo-geringering te kry, is deur jou onwettig daarop te vestig en dán sal grond aan jou toegeken word. "Hierdie mense het onverstelklik gebly en gesê hulle sal op daardie grond sterf. Hulle het tien dae en 'n grasietydperk van sewe dae tot verlede week Woensdag gekry, toe die adjunkbalju van Windhoek af moes vlieg om die bevel uit te voer. Donderdag is die hofbevel uitgevoer ingesluit die houe se opdrag," het Liswaniso gesê. "So, dit is nie dat die raad nie grond aan die mense beskikbaar

wou stel nie - dis 'n leuen. Dit is die politici en onbetroubare opposisiepartye wat eintlik die mense wil oortuig dat hulle nooit grond van Swapo sal kry as hulle dit nie gryp nie. "Dit is wat in Katima Mulilo sirkuleer. Dit het die dorp onregeerbaar gemaak."

ONS FOUTE

Die uitvoerende hoof het toegegee dat die raad se vorige besluite tot die grondgrypery bygedra het. Hy het gesê in 2014 het mense grond by die Lwajaha-informele nedersetting gekry en pleks daarvan om hulle uit te sit, het die raad besluit om 'n memorandum van verstandhouding met hulle aan te gaan wat die inwoners toegelaat het om op die grond te vestig, mits hulle vir die erwe betaal. 'n Aantal politieke partye en aktiviste het die plaaslike owerheid veroordeel omdat hulle die huise by Lwanyanda gesloop het. In reaksie hierop het Liswaniso hulle beskryf as opportuniste wat alles in hul mag doen om die regering onder Swapo te probeer destabiliseer.

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Savanna Beef se vleis betree mark dalk gou

» **Produsente beskik** oor bykans 85% se aandele

Terwyl beesboere ruim in Savanna Beef belê het, kan 'n tweede BVCF-projek hulle help om dalk teen vroeg volgende jaar reeds beesvleis onder dié handelsmerk te begin bemark.

Elvira Hattingh

Terwyl beleggings deur beesprodusente in Savanna Beef Namibia (SBP) Vrydag op 'n indrukwekkende N\$169 miljoen, of bykans 85% aandeelhouding gesluit het, kan die eerste vleis onder dié handelsmerk dalk reeds teen vroeg volgende jaar bemark word. Mnr. Diethelm Metzger, ondervoorsitter van die SBP-raad asook van die Forum vir die Beesvleis-waardeketting (BVCF), het gister in 'n onderhoud met *Republiek* gesê indien alles vlot verloop, is hy optimisties dat die Brukarros-abattoir reeds teen die einde van vanjaar of vroeg volgende jaar met werksaamhede sal kan begin.

EIE PROJEK

Oor hoe die ontwikkeling van Brukarros in die prentjie pas, bevestig Metzger: "Ek wil dit net duidelik stel. Brukarros is nie 'n Savanna Beef-projek nie. Dit is uit en uit 'n BVCF-projek. "Die voordeel van die Brukarros-projek vir SBP - en ook die hoofrede waarom ons hierby betrokke is - is om 'n mark te beding en te ontwikkel wat die bedryf vroeër gaan betree en onder die Savanna Beef-handelsmerk sal kan verkoop. "Dit is die hoofrede waarom ons hierdie doen - om vroeër in die mark te kan inkom." Metzger se Brukarros is

'n gesamentlike onderneming tussen die BVCF en nog 'n party. Alhoewel hy nog nie wou sé wie die ander party is nie, het hy tog verduidelik dat die onderhandelinge reeds in 'n gevorderde stadium is. "Ons het so ver gevorder dat ons nou al oor die finansiering onderhandel. Ons sakemodelle is bykans gefinaliseer. Daar is nog geen kontrakte geteken nie, maar dit is alles in wording. Dit is waar ons nou staan, wat Brukarros betref."

Metzger se daar word ook dikwels opgemerk dat Brukarros ver van die beesproduserende gebiede is. "Die plan is om die beeste tot in Windhoek te laat ry en daarvan af sal Brukarros die vervoer oorneem. Dus lewer die produsent sy beeste net in Windhoek, waar hulle vir 'n tyd lank moet oortaan as deel van ons uitvoerprotokol. Hulle mag nie te lank ry nie. Daarna hanteer die slagplaas verdere vervoer. "Die ander ding wat belangrik is: Die Suide kom ook uit 'n droogte-soos die res van Namibië. Dit het egter potensieel genoeg beeste om Brukarros teen volle kapasiteit te benut. Die ontwikkeling van Brukarros sal dus tot voordeel van beesprodusente in die Suide wees," het hy verduidelik.

Hy se hulle beoog om sowat 120 beeste per dag by Brukarros te slag, of sowat 22 000 tot 24 000 beeste per maand.

"Die idee is om Brukarros aan die gang te kry vir die bemarking van Savanna Beef. In die langtermyn sal dit ook 'n slagfasiliteit - soortgelyk aan Savanna Beef - vir boere in die Suide wees," het hy gesê.

TWEDE RONDTE

Tydens die tweede beleggingsvenster vir SBP, wat op 19 Augustus geopen het, is in totaal 158 beleggingsaansoeke vir 'n bykomende N\$23 miljoen ontvang.

Altesaam 51 hiervan is bestaande aandeelhouders en 107 is nuwe aansoeke, het die BVCF in die sosiale media gesê, maar bygevoeg dat die tweede

rondte nog "geoudit en gerekonsiliseer" moet word. Voor die opening van die tweede beleggingsronde, was daar nog sowat N\$54 miljoen se aandele beskikbaar, met produsente wat toe reeds N\$146 miljoen van die beskikbare N\$200 miljoen opgekoopt het.

PRODUSENTE SE VERTROU

"Ons het met die opening van die tweede beleggingsvenster gesien dat ons regtig die vertroue van die boere het," het Metzger, wat self 'n beesprodusent is, opgemerk. "Dit is vir ons baie langrik om nie dié ver-

troue te skend nie. Ons wend alle pogings aan om die regte dinge te doen - in belang van die beesbedryf en sy produsente." Hy se hulle is bewus van die optimisme wat in die beesbedryf oor die nuwe ontwikkelinge heers. "Dit is 'n nuwe sake-konsep en tot dusver het boere nog nie gewaag om dit aan te pak nie. Ons was seker op die regte tyd op die regte plek en die regte

klomp mense was saam om dit aan te pak."

Hy het bygevoeg dat vandeeweek 'n belangrike een vir SBP is waartydens groot besluite geneem moet word. "Daar is baie dinge aan die gebeur en baie besluite wat geneem moet word. Dit moet reggedoen word en goed deurdatig en sinvolle besluite wees," het hy gesê. Mnr. Mecki Schneider,

voorsitter van die SBP-raad en ook van die BVCF, het aangedui dat daar teen die einde van die week 'n mediaverklaring oor die nuwe ontwikkelinge uitgereik sal word. Die BVCF het in die sosiale media genoem dat hierdie "n trotsse prestasie is vir 'n uitvoerslag- en verwerkingsfasiliteit, in besit van Namibiese beesboere."

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PUBLIC PARTICIPATION NOTICE

ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN FOR THE OPERATIONS OF REHO ABATTOIR

Geo Pollution Technologies (Pty) Ltd was appointed by Reho Abattoir (Pty) Ltd to undertake an environmental assessment for their existing abattoir at Rehoboth. The environmental assessment will be according to the Environmental Management Act of 2007 and its regulations as published in 2012. Current operations entail the slaughtering of lamb, sheep and cattle sourced from Namibian farms. The Proponent intends to upgrade the facility to increase the slaughtering capacity of the abattoir to ultimately slaughter 70 heads of cattle and 250 heads of sheep per day. More information regarding the project and assessment is available at:

<http://www.thenamib.com/projects/projects.html>

All interested and affected parties (IAPs) are invited to register with the environmental consultant. By registering you are provided with the opportunity to share any comments, issues or concerns related to the project, for consideration in the environmental assessment. Please register with, and provide comments to, Geo Pollution Technologies by 20 September 2022.

André Faul

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Join the quest to find the letters in our three publications - *Republiek*, *Namibian Sun* and *Allgemeine Zeitung* - unscramble the letters and you could win

N\$1000 weekly!

Keep your eyes peeled for letters that

LOOK LIKE THIS

SMS your answer, e.g. QUEST "WORD" to 51500. N\$ 3/5MS. Ts & Cs apply. All proceeds go to the African Child Development Trust. Winners will be contacted every Thursday. Winners are announced every Monday. Keep your newspaper in order to claim your prize. The winner will be asked to send a photograph of themselves with their newspaper, which will be featured in the following Monday's newspaper.



Site Notice



Appendix B: Consultant's Curriculum Vitae

ENVIRONMENTAL SCIENTIST**André Faul**

André entered the environmental assessment profession at the beginning of 2013 and since then has worked on more than 175 Environmental Impact Assessments including assessments of the petroleum industry, harbour expansions, irrigation schemes, township establishment and power generation and transmission. André's post graduate studies focussed on zoological and ecological sciences and he holds a M.Sc. in Conservation Ecology and a Ph.D. in Medical Bioscience. His expertise is in ecotoxicological related studies focussing specifically on endocrine disrupting chemicals. His Ph.D. thesis title was The Assessment of Namibian Water Resources for Endocrine Disruptors. Before joining the environmental assessment profession he worked for 12 years in the Environmental Section of the Department of Biological Sciences at the University of Namibia, first as laboratory technician and then as lecturer in biological and ecological sciences.

CURRICULUM VITAE ANDRÉ FAUL

Name of Firm	:	Geo Pollution Technologies (Pty) Ltd.
Name of Staff	:	ANDRÉ FAUL
Profession	:	Environmental Scientist
Years' Experience	:	22
Nationality	:	Namibian
Position	:	Environmental Scientist
Specialisation	:	Environmental Toxicology
Languages	:	Afrikaans – speaking, reading, writing – excellent English – speaking, reading, writing – excellent

EDUCATION AND PROFESSIONAL STATUS:

B.Sc. Zoology	:	University of Stellenbosch, 1999
B.Sc. (Hons.) Zoology	:	University of Stellenbosch, 2000
M.Sc. (Conservation Ecology)	:	University of Stellenbosch, 2005
Ph.D. (Medical Bioscience)	:	University of the Western Cape, 2018

First Aid Class A	OSH-Med 2022
Basic Fire Fighting	OSH-Med 2022

PROFESSIONAL SOCIETY AFFILIATION:

Environmental Assessment Professionals of Namibia (Practitioner and Executive Committee Member)

AREAS OF EXPERTISE:

Knowledge and expertise in:

- ◆ Water Sampling, Extractions and Analysis
- ◆ Biomonitoring and Bioassays
- ◆ Biodiversity Assessment
- ◆ Toxicology
- ◆ Restoration Ecology

EMPLOYMENT:

2013-Date	:	Geo Pollution Technologies – Environmental Scientist
2005-2012	:	Lecturer, University of Namibia
2001-2004	:	Laboratory Technician, University of Namibia

PUBLICATIONS:

Publications:	5
Contract Reports	+175
Research Reports & Manuals:	5
Conference Presentations:	1