DRAFT SCOPING REPORT

in support of an

ENVIRONMENTAL AUTHORISATION, WASTE LICENSE AND VARIATION OF THE ATMOSPHERIC EMMISIONS LICENSE

for

PORTION OF FARM JUMBO NO. 724
KRAAIFONTEIN
EXPANSION OF ABATTOIR AND RENDERING FACILITY

NOI PRE-APPLICATION DEA&DP REPORT REFERENCE NUMBER 16/3/3/6/7/1/A5/37/2318/15
WASTE LICENSE APPLICATION TO DEPARTMENT OF ENVIRONMENTAL AFFAIRS – NO REFERENCE NUMBER AT THIS STAGE
AND
VARATION OF THE AIR EMISSIONS LICENCE
AEL REFERENCE NUMBER: WCCT 022

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DEPARTMENTAL REF NO: To be provided

AUGUST 2019

PROJECT DETAILS

eco impact Environmental Health & Safety Legal Consulting	**Title:** PORTION OF FARM JUMBO NO. 724 KRAAIFONTEIN EXPANSION OF ABATTOIR AND RENDERING FACILITY Scoping Report	
Eco Impact No:1-05/2018	**Date:** August 2019	**Report Status:** Draft Scoping Report
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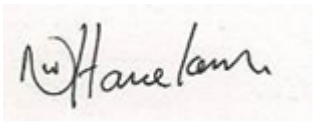
Verification	Capacity	Name	Signature	Date
Author	Principle EAP	Nicolaas Hanekom		23 August 2019

TABLE OF CONTENTS

LIST OF APPENDICES

GLOSSARY

"Activity" means an activity identified in terms of NEMA EIA 2014 Regulations and as amended April 2017
"Alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to property, activity, design or technology.
"Applicant" means a person who has submitted or intends to submit an application.
"Associated Infrastructure," means any building or infrastructure that is necessary for the functioning of a facility or activity or that is used for an ancillary service or use from the facility.
"Biodiversity" The variety of life occurring in an area, including the number of different species, the genetic wealth within each species, and the natural habitat where they are found.
"Borehole" Includes a well, excavation or any artificially constructed or improved underground cavity that can be used for the purpose of: • intercepting, collecting or storing water in or removing water from an aquifer; • observing and collecting data and information on water in an aquifer; or • re-charging an aquifer.
"Cultural significance" This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.
"Cumulative impact" 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.
"Environmental Impact Assessment" in relation to an application to which scoping must be applied, means the process of collecting, organizing, analysing, interpreting and communicating information that is relevant to the consideration of that application.
"Environment" The environment has been defined as "The external circumstances, conditions and objects that affect the existence and development of an individual, organism or group". These circumstances include biophysical, social, economic, historical, cultural and political aspects.
"Environmental Assessment Practitioner" Person or company, independent of the applicant (developer), that manages the environmental assessment process of a proposed project on behalf of the applicant.
"Environmental Impact Report" In-depth assessment of impacts associated with a proposed development. This forms the second phase of an Environmental Impact Assessment and follows on from the Scoping Report.
"Environmental Management Programme" means a programme presenting management and mitigation measures in relation to identified or specified activities envisaged.
"Heritage resources" This means any place or object of cultural significance. It also includes archaeological resources.
"Interested and Affected Party" means an interested and affected party contemplated in section 24(4) (d) of the Act, and which in terms of that section includes - (a) Any person, group of persons or organization interested in or affected by an activity; and

(b) Any organ of state that may have jurisdiction over any aspect of the activity.
"Public Participation Process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters; *"Registered Interested and Affected Party", in relation to an application, means an interested and affected party whose name is recorded in the register opened for that application in terms of regulation 57.*
"Species of Conservation Concern" All those species included in the categories of endangered, vulnerable or rare, as defined by the International Union for the Conservation of Nature and Natural Resources.
"Significant impact" means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.
"The Act" The National Environmental Management Act, 1998 (Act No. 107 of 1998)

ABBREVIATIONS

CBA: Critical Biodiversity Area
DEA: Department of Environmental Affairs
DEA&DP Department of Environmental Affairs and Development Planning
DWS: Department of Water and Sanitation
EAP: Environmental Assessment Practitioner
EMP: Environmental Management Programme
EIA: Environmental Impact Assessment
EIR: Environmental Impact Report
FSR: Final Scoping Report
HIA: Heritage Impact Assessment
I&APs: Interested and Affected Parties
IDP: Integrated Development Plan
MAR: Mean Annual Rainfall
NEMA: National Environmental Management Act No. 107 of 1998
NEM:WA: National Environmental Management: Waste Act No. 59 of 2008
NWA: National Water Act No. 36 of 1998
PPP: Public Participation Process
PHRA: Provincial Heritage Resources Agency
SACNASP: South African Council for Natural Scientific Professions
SANBI: South African National Biodiversity Institute
SDF: Spatial Development Framework
ToR: Terms of Reference

SCOPING REPORT

SECTION 1: INTRODUCTION

This report has been prepared in compliance with the requirements of the following legislation:

- The National Environmental Management Act, 1998 (Act No. 107 of 1998) ["NEMA"];
- The Environmental Impact Assessment ("EIA") Regulations contained in Government Notice (GN) No. R983, 984 and 985 of 2014 as promulgated in terms of the NEMA ["EIA Regulations"] as amended up to and including GN 327, 325 and 324 in GG 40772 of 07 April 2017.
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921 of 2013 as amended by Government Notice No. 332 of 2 May 2014, under sections 19(2)(a), 19(3)(a) read with sections 19(10)(a), 72 and 73 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

The purpose of these Regulations is to regulate procedures and set criteria as contemplated in Chapter 5 of the Act to enable the submission, processing, consideration and decision making regarding applications for environmental authorization of activities and matters pertaining thereto.

1.1 APPLICATION FOR ENVIRONMENTAL AUTHORIZATION AND PROPOSED PROJECT DESCRIPTION

County Fair proposes to expansion the existing abattoir and rendering facility.

The existing abattoir will be expanded in order to increase the number of chickens to be slaughtered to 367 000 chickens per day (2.2 million per week at a 6 days per week operation). In order to increase the number of chickens to be slaughtered, the following expansions to the existing infrastructure are needed:

- New turning area / bus parking (± 2100m^2). Take note that the amendments to the layout and infrastructure will result in a section of the existing concrete sludge dams to be decommissioned and demolished. Waste associated with this process will be handled in terms of the EMPr which will be included in the EIR phase. A new sewerage treatment plant is proposed and the Waste water generated from ablution facilities will be treated in a 300kl per day Aboveground Steel Tanks Waste Water Treatment Plant. The sludge ponds impacted by the expanded infrastructure is no longer required.
- New weighbridge & weighbridge house (± 20m^2)
- New training facility & covered walkway (± 420m^2)
- New change room extension (± 254m^2)
- New truck driveway (± 1240m^2)
- New truck holding area (± 395m^2)
- New fresh packing extension (± 810m^2)
- Existing holding room with new floor & roof (± 626m^2)
- New holding room with freezer panels (± 80m^2)

- New (2x) 3 ton gyro's with new floor (± 202m^2)
- New position of existing stores, offices & ablutions facilities (± 108m^2)
- New air compressor plant (clean feet project) (± 165m^2)
- New IQF security entrance (± 50m^2)
- New bus route & turning circle (± 1580m^2)
- New 4 ton gyro freezers (± 615m^2)
- New dispatch area & crate washing area (± 1275m^2)
- New dispatch concrete apron (± 2275m^2)
- New live bird receiving upgrade (± 3620m^2)
- New boiler room (± 855m^2)
- New effluent treatment plant (± 420m^2)
- New live bird receiving & turning area (± 1850m^2)
- Demolish existing entrance, changes room & car ports (± 916m^2)
- New gravel road 7.4m wide (± 1500m^2).

Total development footprint will be expanded by approximately 2.1 ha on the 12.12ha Agricultural Zone 2 area. The above infrastructure and extensions will all take place next to the existing abattoir and rendering facility.

Upgrade of existing facility. Waste water generated from ablution facilities (300kl per day Aboveground Steel Tanks Waste Water Treatment Plant)

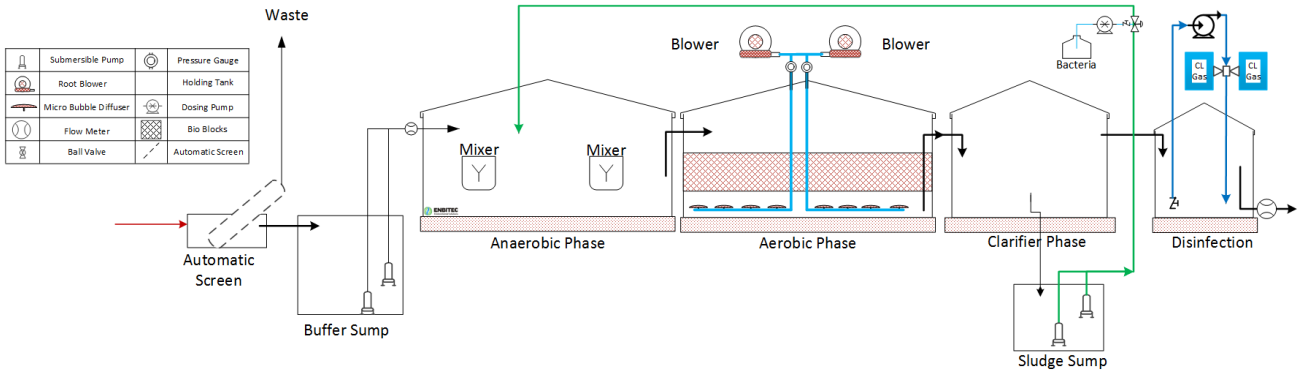


Figure 1: Process overview and equipment to be installed

PUMP SUMP

- Gravity feed from manual screen
- Pump Sump will act as lifting station to the Automated screen.
- 2 x Sewage specific, stainless steel submersible pumps to be installed in the feed sump
- A main and standby feed pump to be installed to eliminate spillages and ensure availability.

FEED PUMPS

Feed pumps are to be installed in the pump sump that will feed the plant. The feed pump will be submersible sewage specific pumps that will feed the automated screen. A main and standby feed pump will be installed to eliminate spillages and ensure availability. The feed pumps will have a ccapacity of 500L per Hour.

SUPPLY OF AUTOMATED COMBINATION SCREEN THAT INCLUDES:

- Model: TSF3 – m10, flow rates of up to 270m^3 per hour, inlet screen mesh: 1 mm
- Sand separation: 90% particle size ≥ 200 µm
- Grease removal
- Up to 35% solids volume reduction
- The automated screen will be fed from the feed sumps
- The automate screen will discharge into the buffer sump

BUFFER TANKS

Construction of a Buffer tank, the buffer tank will be a concrete casted structure. The total capacity of the buffer tank is 45m^3 which can accommodate at least 3 hours of peak flow. The buffer will be fed under gravity by the automated screen.

FEED PUMPS

Feed pumps are to be installed in the buffer tank that will feed the plant. The feed pump will be submersible sewage specific pumps that will feed the plant at the designed flow rate. A main and standby feed pump to be installed to eliminate spillages and ensure availability.

FLOW REGULATOR

Feed line to be fitted with in-line flow regulator. Daily flow will be determined and set on commissioning. Specific pre-set amount of effluent will be pumped into plant. The flow regulator will have a capacity of 250L per minute max flow rate to be pumped into plant.

ANAEROBIC DIGESTION TANK

There will be a minimum of 2 x Steel Sectional Tank in series that will serve as the anaerobic digestion phases. The anaerobic treatment processes take place in the absence of air (and thus molecular/free of oxygen) by those microorganisms (also called anaerobes) which do not require air (molecular/free oxygen) to assimilate organic impurities. The final products of organic assimilation in anaerobic treatment are methane and carbon dioxide gas and biomass. The anaerobic digestion also serves as separation of solids from liquids, a dual function which allows for settlement of solids and the other solids like oils, fats and greases will float to surface. Additional capacity is allowed for the return activated sludge from the clarifier. The anaerobic digester allows for equivalent of 20 days stabilized sludge. The return activated sludge from the clarifier is mixed with raw incoming effluent and held for anaerobic conditions for at least 20 days which assist solids digestion. The extended period also assists with the nitrification of ammonia. The anaerobic digester also allows for anoxic conditions where nitrogen is removed. Hydraulic retention of 1 day is allowed for.

AEROBIC DIGESTION OR BIOREACTORS

The aerobic phase makes use of 2 x Steel Sectional Tank to serve as the aerobic digestion phase. Aerobic treatment processes take place in the presence of air and utilize those microorganisms (also called aerobes), which use molecular/free oxygen to assimilate organic impurities i.e. convert them in to carbon dioxide, water and biomass. Each tank will be fitted with micro bubble diffusers which allows for high dissolved oxygen transfer into the effluent. A double stage blower will be used in the bioreactor. Fixed film media will be installed in the tank to allow for bacterial growth at a rate of > 148m^2/m^3 of surface area. The COD levels are reduced by 90% in

terms of feed rates. The main function of the anaerobic digesters is to reduce Ammonia levels. Hydraulic retention of 1 day is allowed for.

CLARIFIER OR RE-ACTIVATED SLUDGE TANK

There will be 1 x Steel Sectional Tank will serve as the clarifier. The activated sludge needs to be separated from the treated effluent before disinfection and discharge can take place. Submersible pump will be installed to feed the anaerobic phase. Settled sludge from the clarifier mainly consists of scoured bacteria that is returned to the anaerobic digester which feeds the anaerobic digester. The RAS process improves the nitrification, stabilizes the primary sludge and ensures it will always stay active, even during periods of low flow.

DISINFECTION OR STERILIZATION

There will be one disinfection tank. The tank will be fitted with ozone contact chamber to optimize disinfection. Disinfection is done with ozone generator that injects ozone into a venturi which mixed the liquid and air and forms micro bubbles to optimize the disinfection. The contact time will be 1 hour.

CONTROL ROOM

The control room will consist of a pre-manufactured refurbished ISO container. All the mechanical equipment except the submersible pumps will be installed in this area, the DB Board, controls and monitoring equipment is all installed in this room. All the mechanical equipment except the submersible pumps will be installed in this area, including:

- The DB Board, electrical controls and GSM monitoring system
- Blower and disinfection system
- Monitoring equipment

POWER REQUIREMENTS

The facility requires 380V feed. Feed pumps will be connected on a flip flop switch. All electrical equipment is L/S type. A blower is one on duty and one on standby. An alarm when in fault status coupled with a flashing red light will be installed. Timers on Blowers & Clarifier Pumps (24 hours with 15 minute interval settings) will be installed. A GSM Unit will be installed that will report via SMS any equipment trip or malfunction. This will also provide monthly reports on the operational status of the plant.

Effluent Treatment from Abattoir and Rendering facility

The existing WWTW can be upgraded to comply with future treatment capacity without the requirement for additional major civils or earthworks construction. The most important alteration would require increasing the aeration capacity from 180 kWh towards 340 kWh and this will address the current and future Ammonia levels in the final water. Phosphate levels can be reduced to acceptable standard by implementing brine wastage reduction protocols inside the abattoir facility (this is purely a management issue and not treatment related). E. coli can be reduced to acceptable standard by implementation of Chlorination of the final treated water. It should be noted that County Fair has implemented substantial water reduction protocols, and this has resulted in lower water consumption per bird, but also increased the pollution concentration in the wastewater. The current installed aeration capacity is at 180 kWh and is basically sufficient to remove 440 kgN/day.

The facility would need to *increase the aeration capacity to 340 kWh* to remove 1,120 kgN/day – which is what would be required for the 2,2 million birds/week slaughter volumes. The wastewater flow would then increase to an estimated 4,400 m^3/day and at same pollution concentration as the current situation.

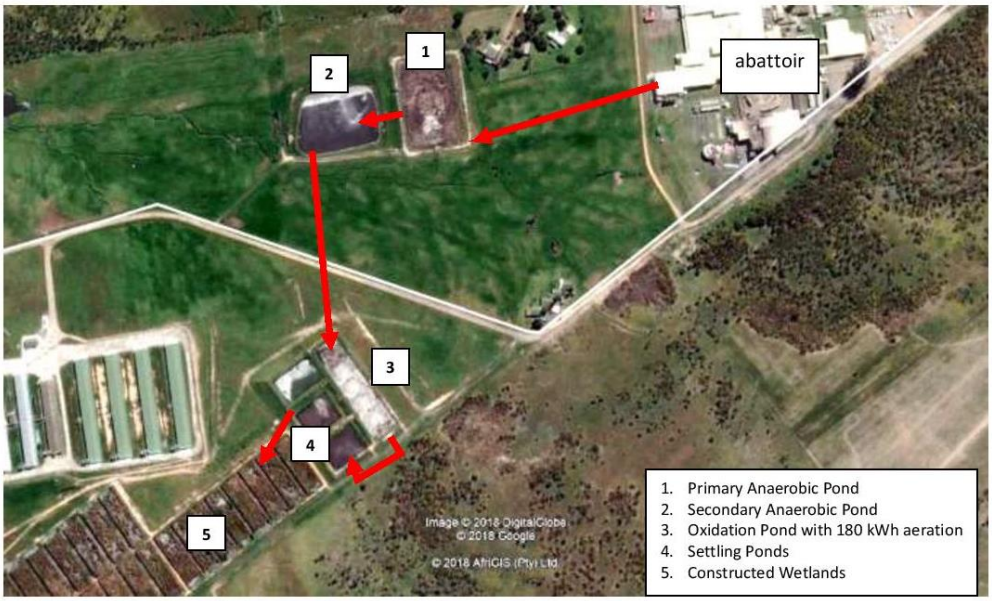
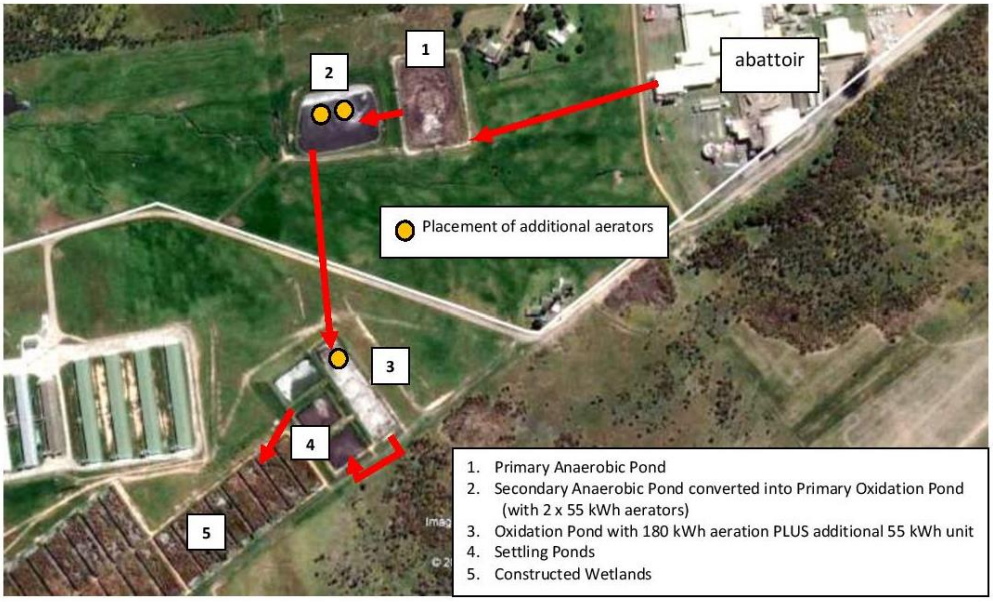


Figure 2 provides a summary of the proposed expansion to accommodate future flow of 4,400 m^3/day from slaughtering 2,2 million birds/week



Figures 3 provides a summary of the proposed expansion to accommodate future flow of 4,400 m^3/day from slaughtering 2,2 million birds/week.

The expansion will not require alterations to the existing dams and comprises the following:

- Additional 55 kWh aerator installed on the existing Oxidation Pond
- Converting the Secondary Anaerobic Pond into a new Additional Oxidation Pond with installation of 2 x 55 kWh aeration units
- The current aeration capacity of 180 kWh will remain unchanged

- This will provide a total aeration capacity of 345 kWh and regarded as suitable.

Note that the expected wastewater flow of 4,400 m^3/day is not of concern, because the WWTW was originally designed to handle a hydraulic load of 5,500 m^3/day. The wastewater has a higher pollution concentration, which can be addressed as mentioned above.

Animal Matter Reduction Process
The process channels raw material to the existing rendering facility. Raw product Waste Rendered will consists of Feather Meal Input Material – 546 546 kg/week and Poultry Meal Input material – 805 605kg/week with a total of 1 392 431 kg/week or 199 tons per day.

This process comprises feathers, blood and recovered protein to the feather plant and mortalities, mala and blood from the abattoir and farms to the poultry mix line; thereafter into seven John Thompson Cookers with a five and a half ton capacity each.

The cycle comprises a pressure cook, an atmospheric cook and a drying period. The dry meal is discharged, milled and packed. The process can produce finished product comprising 84 (600kg bags) poultry meal and 16 150 litre oil per day.

<u>The Sterilization Plant consists of the following sections:</u>

The product reception area has two receiving hoppers, one for feathers and the other hopper for mala which comprises intestines, rejected feet, heads and mortalities received from the farms and other reject chicken by products which are received from the abattoir.

The hydrolysers (cookers) operate the process of loading, processing and discharging. Four of the hydrolysers (cookers) are utilised in a single stream to process the feathers and blood generated by the abattoir slaughter process.

The remaining materials of varying volumes consisting of mortalities, dead on arrivals, excess heads and viscera are processed on the separate poultry mix line.

A poultry crusher that homogenizes the variety of raw material input is coupled with a pump to regulate the flow rate to the continuous poultry mix meal line. This line consists of a continuous drier that dries the raw material. The dried material is then processed in 3 hydrolysers (cookers) and then flows into an oil press that extracts the oils from the poultry mix products.

Some of these oils are routed back into the drier to aid the drying process and the remaining oil goes through a decanter.

The plant is able to handle the varied supply of raw material while providing the oil pressing plant with a continuous steady feed to ensure best meal and oil consistency. A major advantage of the plant is that this process is flexible by nature to enable continuous processing of the varied raw materials, with no changeover required to the plant and equipment.

A continuous air cooler with filters is installed in line after the feather drier and poultry press. The air cooling is more effective opposed to the closed loop drying system utilizing ambient air. The grinding, weighing and bagging process with filter system ensures continuous flow.

The final product area consists of a reception hopper for the sterilized material from the cookers and the hammer mill for refining of the product which is subsequently transferred to large storage bags.

Expansion to the existing Rendering facility:

Feather and Blood line:

Based on a 144 hours / week as opposed to the 120 hours currently operating at, the feather drier will be sufficient if extra drying in the batch cookers is increase until 55% moisture. Therefore 1 additional cooker (5.5 ton) will be installed for the feather blood line.

Carcass line:

An additional pre-cooker (5.5 ton) will be installed to handle the additional raw material and moisture. 1 additional cooker (5.5 ton) will be installed to the carcass line will be required.

Therefore, the rendering facility will be expanded by installing two new (5.5 ton cookers and one pre-cooker (5.5 ton) to treat the additional material received from the abattoir.

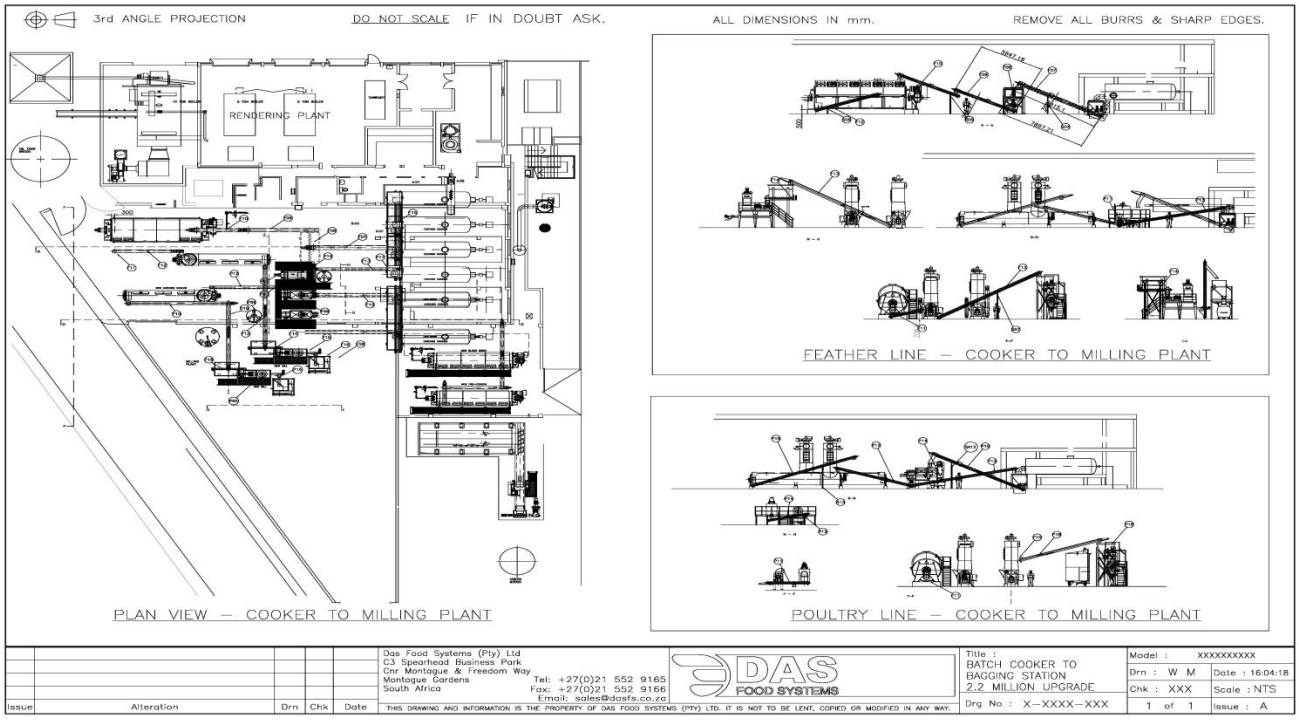


Figure 4: Cookers to milling plant

The existing access roads will be used. However, the proposal includes the extension of an existing gravel road of 7.4m wide and approximately 1500m^2.

The poultry abattoir and by-product (rendering) factory are located in a rural area on Agri-Industrial farmland off Klipheuwel Road on Farm Jumbo No. 724. The surrounding land use is agricultural land mainly for poultry farming. A residential development was approved and authorization and issued to Garden Cities to develop on the property north of the facility. Fisantekraal Airport is approximately 2.5km north of the site; the town of Fisantekraal is approximately 2.5km from site. The Uitzicht residential area and Kraaifontein are approximately 5km from the site and Joostenberg Vlakte itself some ±3.5 km.

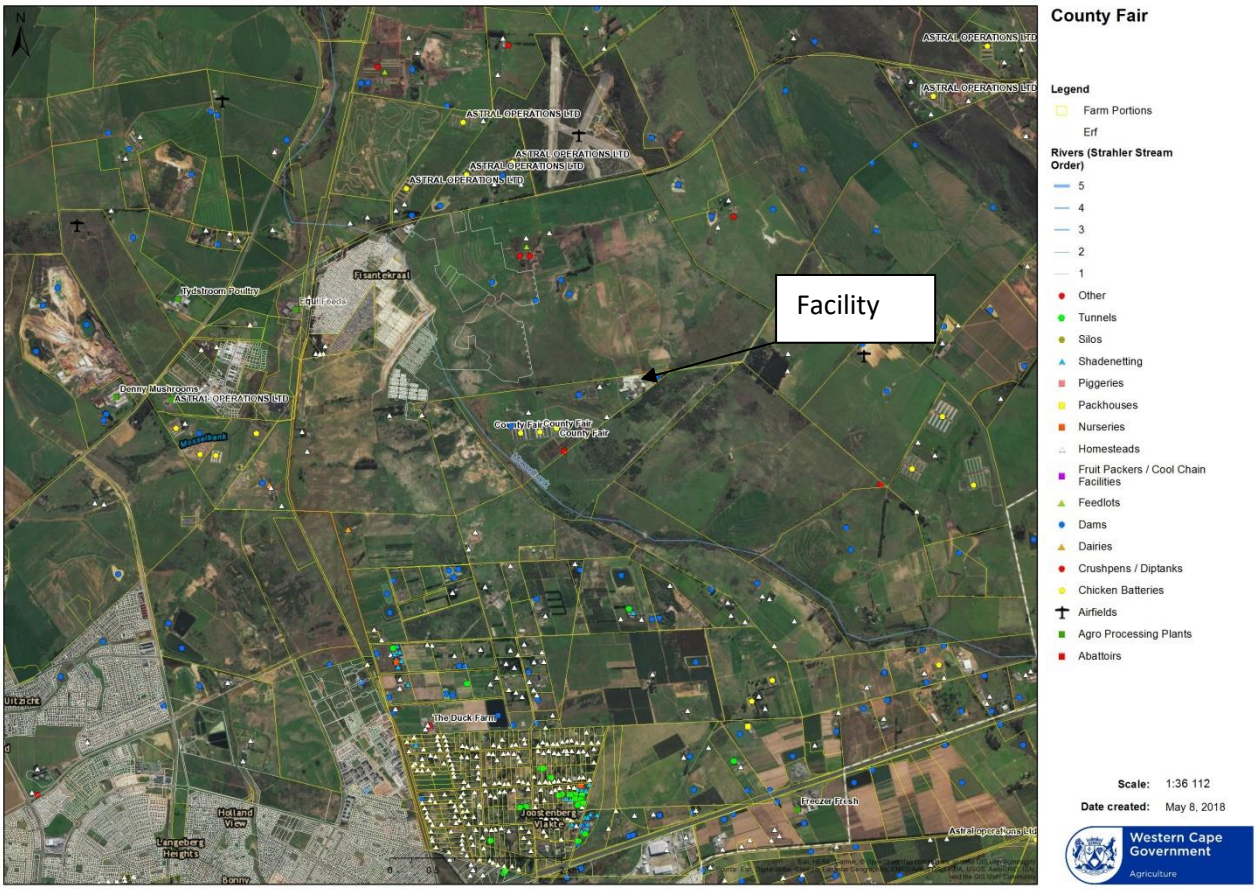


Figure 5: Facility Location

Stormwater Management Plan

In order to achieve the attenuation for the abattoir site, it is intended to create a wet attenuation pond just above the existing informal dam below the northern waste water treatment ponds. The entire catchment area of the abattoir and rendering facility will drain to the pond. The surface slope of the abattoir site sub-catchments was determined as 1.60% and 1.52% respectively. The proposed extension of the abattoir will connect to the existing stormwater underground piped system which drains to the existing screen and forebay. The piped system will need to accommodate at least the 1:5 year RI peak flows and stormwater overland escape routes will have to be provided to prevent stormwater ponding between buildings. A new additional forebay is proposed downstream of the abattoir at the existing outfall manhole position. The forebay will be followed by a bioretention pond with a weir

wall discharging to the existing main stream. It is proposed that the stream be formalised with a lined open channel or that erosion protection gabion weirs be installed to prevent future erosion of the stream. Stormwater will be conveyed along the stream/future channel to a forebay before entering the proposed wet attenuation pond. The attenuation pond will be provided with a controlled outlet structure and spillway to discharge stormwater runoff to pre-development peak flows for storms up to the 1:100 year recurrence interval. The spillway will be concrete lined discharging to a gabion spreader box before being released back into the natural stream leading to the Mosselbank River. The outlet structures for the pond will be in the form of a spillway with a controlled outlet weir wall. At the bottom of the spillway a Reno-mattress spreader will be installed to limit erosion before discharging into the natural stream leading to the Mosselbank River. The spillway is designed to accommodate the 1:100 year peak flow.

The stormwater rooftop runoff for the broiler camp will be contained in the open areas between the broiler houses. The ground levels between the houses will be shaped to form enhanced dry swales with infiltration media and 160mm Ø underdrains draining to controlled outlet structures at the existing outfall pipes. Spreader gabion structures will be installed where the outlets daylight on the outside of the broiler camp in the open veld to prevent erosion.

Table 1: Listed activities identified are as follows:

Government Notice R. 983 Activity No(s):	**Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 983)**	**Describe the portion of the development as per the project description that relates to the applicable listed activity**
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;	Upgrade of the existing stormwater dam and system
34	The expansion or changes to existing facilities for any process or activity where such expansion or changes will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent or pollution excluding –	Expansion of the rendering facility equipment that results in variation of the AEL and amendment of the Water Use Authorization License

38	The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than- (i) 50 poultry;	Expansion of the abattoir to increase the number of chickens per day
40	The expansion and related operation of facilities for the concentration of poultry, excluding chicks younger than 20 days, where the capacity of the facility will be increased by- 40. (i) more than 1 000 poultry where the facility is situated within an urban area; or (ii) more than 5 000 poultry per facility situated outside an urban area.	Expansion of the abattoir to increase the number of chickens per day
48	The expansion of— (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more; where such expansion occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;	Upgrade of the existing stormwater dam and system
Government Notice 893 in *Government Gazette* 37054 of 22 November 2013 and amended by: Gen N 551 GG 38863 2015/06/12 Activity No(s):	**Describe the relevant atmospheric emission activity in writing.**	
Listed activity no. 10. Animal matter processing. Sterilization of animal matter not intended for human consumption.		
GN No. 921 and amended by GN 1094 GG 41175 11/10/2017 (See transitional arrangements) Activity No(s):	**List of waste management activities that have, or are likely to have, a detrimental effect on the environment**	
Category A (3) (6) **The treatment of general waste using any form of treatment at a facility that has the capacity to process in excess of 10 tons but less than**		

100 tons.
Category A (3) (7) **The treatment of hazardous waste using any form of treatment at a facility that has the capacity to process in excess of 500kg but less than 1 ton per day excluding the treatment of effluent, wastewater or sewage.**
Category A (3) (12) **The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity).**
Category B (4) (6) **The treatment of general waste in excess of 100 tons per day calculated as a monthly average, using any form of treatment.**
Category B (4) (10) **The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).**

1.2 BACKGROUND AND PURPOSE OF THE SCOPING REPORT

In accordance with the requirements of Part 3, Regulation 21 of GN R236, also having considered the provisions of Section 24(5) of NEMA, it was determined that a scoping process must be undertaken.

This report fulfils the requirement of the EIA Regulations for the documentation in the scoping phase. The structure of this report is based on Appendix 2.2 of GN R.236, of the EIA Regulations as amended, which clearly specifies the required content of a scoping report.

1.3 ENVIRONMENTAL ASSESSMENT PRACTITIONER

1.3.1 Role and Competence of the EAP

The role of the Environmental Assessment Practitioner (“EAP”) is to manage the application for an Environmental Authorization on behalf of the applicant. The EAP must adhere to all relevant legislation and guidelines, ensuring that the reports contain all the necessary and relevant information required by the competent authority to make a decision. It is the responsibility of the EAP to perform all work relating to the application in an objective, appropriate and responsible manner. The EAP must comply with Regulation 13 of the EIA Regulations GNR982 of 2014 as amended GNR 236, 2017, detailing the requirements for an EAP.

Mr Hanekom is a registered Professional Natural Scientist in the ecological science field with the South African Council for Natural Scientific Professions (“SACNASP”) and a qualified EAP who holds a Masters Technologiae, Nature Conservation (“Vegetation Ecology and Biodiversity Assessment”) degree from the Cape Peninsula University of Technology.

He further qualified in Environmental Management Systems ISO 14001:2004, at the Centre for Environmental Management, North-West University, as well as Environmental Management Systems ISO 14001:2004 Audit: Internal Auditors Course to ISO 19011:2003 level, from the Centre for Environmental Management, North-West University qualifying him to audit to ISO/SANS environmental compliance and EMS standards.

Mr Hanekom has been responsible for many environmental impact assessments and several EIA, waste license and atmospheric emission license applications as well as being involved in the implementation of several environmental management systems.

1.3.2 Professional Team

The following are the project team members:

- Nicolaas Hanekom - Environmental Assessment Practitioner (author) and Ecology; and
- Graeme McGill Consulting Engineers – Stormwater management
- MPRO Consulting Engineers – Civil and structural engineers.
- DAS – Rendering facility design

1.3.3 Terms of Reference

The EAP is appointed as environmental consultant with the following Terms of Reference:

- Undertake an environmental evaluation of the applicable options and sites to get an understanding of biophysical characteristics and natural processes prevailing and to assess the proposed development proposals in terms of environmental characteristics by assessing the constraints and opportunities of the situation;
- Identify any anticipated impacts that might be considered at this early stage of the EIA process to suggest any specialist studies that may be required to provide additional information on the significance of these impacts and mitigation that may be necessary to reduce negative impacts and enhance positive impacts of the proposed development;
- Co-ordinate the early start of the recommended specialist studies with the view to informing the compilation of the initial Environmental Opportunities and Constraints;
- In association with the specialist consultants, assist the appointed consulting Engineers with the development of the optimum Site Development that will have the least impact on the both the biophysical and social environments. It is understood that as more detailed information is provided by the various specialist studies and I&APs, that the Environmental Opportunities and Constraints may need revision, and similarly, the SDP may need to be adapted;
- Undertake the applicable Scoping and EIA Process in terms of the Regulations of the NEMA to provide the relevant information for the DEA&DP, and any other government officials, to be able to make informed decisions and to issue an Environmental Authorisation for the proposed development;
- As part of the Scoping and EIA Process, a comprehensive public participation process must be entered into. This process is to provide all the relevant information to the public, NGO’s, CBO’s and government officials, and to allow for adequate time for the public to respond to such information. The issues as raised by I&AP’s must be taken into consideration in assessing the impacts of

the proposed development and, making amendments to the proposed development;

- Assess alternative development options for the property in order to reduce any significant impacts that may arise. Prescribe the necessary mitigation to enhance any positive impacts and reduce any negative impacts that may arise as a result of the proposed development must be suggested;
- Facilitate any additional specialist studies that may be required to assist with the planning and future management of the proposed development; and
- Make the necessary environmental management recommendations (mitigation/ enhancement) for the construction and the operational phases of the proposed development, to ensure a sustainable development in the future.

1.4 LEGISLATIVE ASPECTS

1.4.1 Legislation

The following legislation is applicable to this project, and has been considered in the preparation of the Scoping Report.

Table 2: Applicable legislation

Environmental Legislation	Description of Activity
National Environmental Management Act, 1998 (Act No. 107 of 1998) and relevant regulations	Various general activities as described below, including but not limited to the control of emergency incidents and the care and remediation of environmental damage.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and relevant regulations	The requirements for, waste removal and transportation, waste disposal, littering and the requirements for an integrated waste management plan
National Water Act, 1998 (Act No. 36 of 1998) and relevant regulations	The use of water, including any water purification and effluent treatment facilities, dams and irrigation systems.
Conservation Of Agricultural Resources Act, 43 Of 1983	Weeds and the tolerance thereof, which applies in both urban and other areas.
National Environmental Management: Air Quality Act, 39 Of 2004 And Relevant Regulations	Activities that may affect the air quality on site and the environment surrounding it. AEL for the rendering facility.
Water Services Act, 108 Of 1997 And Relevant Regulations	The use of water and sanitation services of a water services provider.
Constitution of the Republic of South Africa, 1996	General application to individual rights of all on and adjacent to the Sites
Fencing Act, 31 of 1963	The erection and maintenance of fences.
National Building Regulations and Building Standards Act 103 of 1977 and relevant regulations	The erection of new buildings.

Environmental Legislation	Description of Activity
National Heritage Resources Act 25 of 1999	Development of the site and dealing with graves and burial sites and any structures older than 60 years.
National Environmental Management: Biodiversity Act 10 of 2004	The management and conservation of biological diversity and the sustainable use of indigenous biological resources.
National Veld and Forest Fire Act 101 of 1998	Any activities that could result in the start of veld fires.
Section 42 of Spatial Planning and Land Use Management Act (16 of 2013) ("SPLUMA")	NA
Western Cape Land Use Planning Act, 2014 ("LUPA")	NA
By-Law Relating to Stormwater Management, approved by Council: 30/08/2005	Approval of stormwater management plan
CoCT Air Quality Management By-Law, 2016	Atmospheric Emissions License variation
City of Cape Town Environmental Health By-Law No. 1333 of June 2003, Part 1 (Prevention and Suppression of Health Nuisances).	NA
City of Cape Town: Integrated Waste Management Amendment By-law, 2010 on 4 June 2010	Approval of integrated waste management plan

1.4.2 Policies

An environmental policy is derived from the guiding principle whereby an organization first defines the scope of its commitment to the environment. The policy is a public document that communicates the organization's overall approach to managing its interaction with the environment.

Various components of Environmental Management are strongly influenced by the environmental policies in terms of their scope and level of resource allocation. As a rule, objectives and targets are set to achieve compliance with the environmental policy, and overall environmental performance is evaluated against the organization's stated intent reflecting a level of commitment.

Policy must meet the following criteria:

- It must be relevant to the nature of an organization's activities, and the specific environmental aspects associated with those activities;
- It must consider specific local environmental conditions;
- It must consider relevant environmental legislation;
- It must define and formulate the organization's fundamental approach to

environmental management; and
- It must set a precedent for communication and liaison with all stakeholders.

Policies considered in the compilation of this document include:

- National Spatial Development Framework;
- Provincial Spatial Development Framework for the Western Cape;
- City of Cape Town Municipality SDF
- Management of Urban Stormwater Impacts Policy
- Floodplain and River Corridor Management Policy
- City of Cape Town Municipality Town planning regulations

1.4.3 Guidelines

The following guidelines are applicable to this project, and have been considered in the preparation of the Scoping Report:

- Guideline on Public Participation;
- Information of Generic Terms of Reference and Project Schedules;
- Interpretation guidelines under NEMA;
- Circular EADP 0028/2014: One Environmental Management System;
- Guideline for Involving Biodiversity Specialists in the EIA Process (2005);
- Guideline for Involving a Heritage Specialist in an EIA Process (2005);
- Guideline for the Review of Specialist Input in the EIA process (June 2005);
- Guideline for Environmental Management Plans (June 2005);
- Guideline on Alternatives (March 2013); and
- Guideline on Need and Desirability (March 2013).

1.5 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

None at this stage

SECTION 2: DESCRIPTION OF THE PROPERTY

2.1 PROPERTY DESCRIPTION AND LOCATION

The poultry abattoir and by-product (rendering) factory are located in a rural area on Agri-Industrial farmland off Klipheuwel Road on Farm Jumbo No. 724. The surrounding land use is agricultural land mainly for poultry farming. A residential development was approved and authorization and issued to Garden Cities to develop on the property north of the facility. Fisantekraal Airport is approximately 2.5km north of the site; the town of Fisantekraal is approximately 2.5km from site. The Uitzicht residential area and Kraaifontein are approximately 5km from the site and Joostenberg Vlakte itself some ±3.5 km. The Mosselbank River forms the western boundary of the farm.

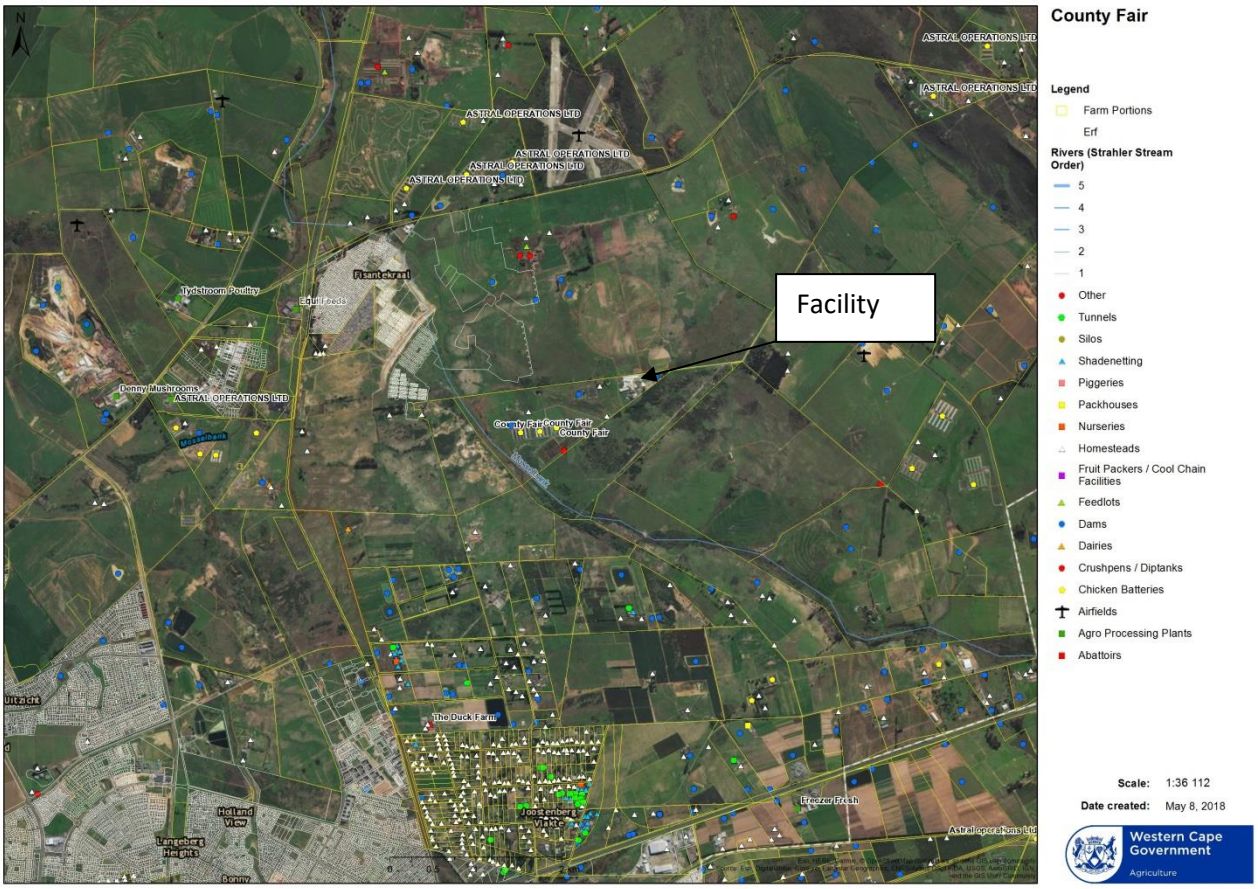


Figure 6: Facility Location

Location of all proposed sites:	Klipheuwel Road, Farm Jumbo No. 724
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Portion 16 of Farm Jumbo No. 724, Joostenbergvlakte, Kraaifontein
Property size(s) in m^2 for each proposed site:	100.2723 ha
Development footprint size(s) in m^2:	Approximately 2 ha
Surveyor General (SG) 21 digit code for each proposed site:	C05500000000072400016

Coordinates of all the proposed activities on the property or properties (sites):		**Latitude (S):** (deg.; min.; sec)			**Longitude (E):** (deg.; min.; sec.)		
	Site	33°	47´	38"	18º	44‘	42“

2.2 GENERAL CHARACTERISTICS AND LAND USE

The site and property is an existing abattoir and rendering facility with associated infrastructure. The agricultural areas is irrigated and used for grazing purposes. The expansion areas of the sites will be all on existing agri-industrial area and disturbed areas. Some of the areas is planted with kikuyu grass and used for grazing. The facility is surrounded by agricultural activities.

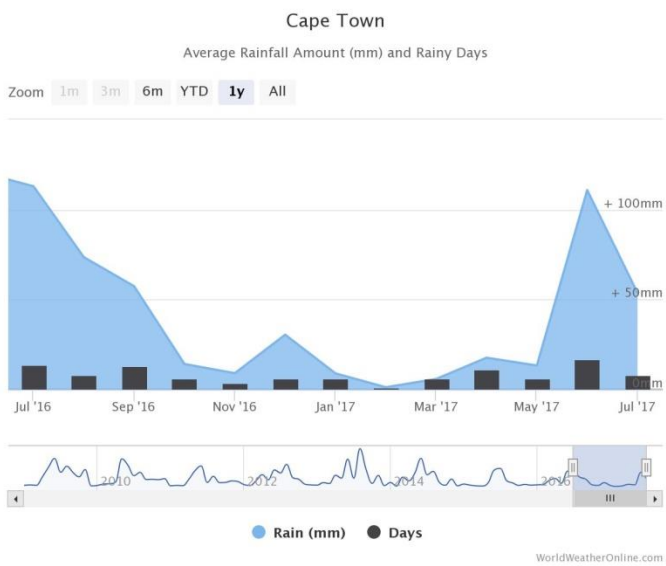
2.3 SPECIFIC CHARACTERISTICS

2.3.1. Biophysical Elements

The expansions will all be on areas classified as areas with no remaining natural vegetation present. The proposed upgrade of the existing stormwater pond and infrastructure will impact on an Aquatic Ecological Support Area. The rest of the proposed expansions will not impact on any Critical Biodiversity Area or Ecological Support Area. The existing stormwater dam that will be upgraded is inside a wetland as identified in the City of Cape Town 2017 biodiversity network. The Mosselbank River forms the western boundary of the farm.

2.3.1.1 Climate

The area receives most rainfall during winter as it has a Mediterranean climate. The mean annual precipitation is approximately 800mm. About 80 % of the rain falls in a series of winter downpours, which bring the river down in spate. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures range from 19°C in July to 29°C in February. The region is the coldest during July when the mercury drops to 7°C on average during the night.



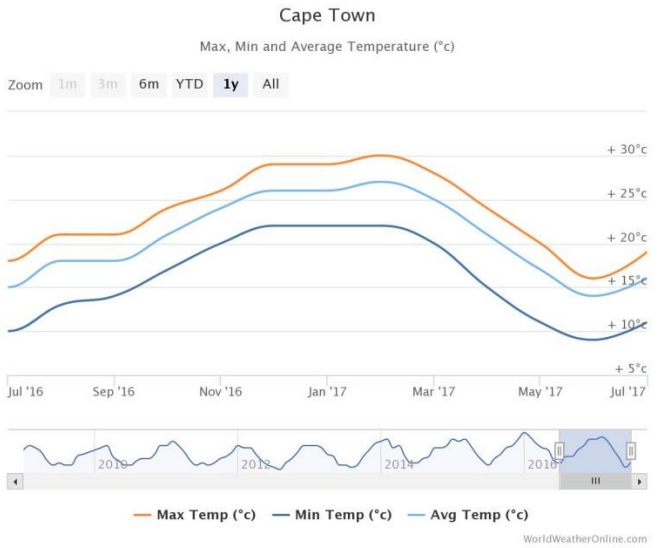


Figure 7: Climate graphs for the area (Worldweatheronline, 2017)

2.3.1.2 Topography

The site has an average slope of 1.0 to 2.7% in a westerly direction towards the Mosselbank River. The expansion of infrastructure will be flat areas. The topography of the area is characterised by shallow valleys at the foot of the Tygerberg Hills. The property lies within the Mosselbank River Valley where it slopes fairly evenly from east to west with a gradual drop of 35m towards the Mosselbank River over a distance of approximately two kilometres. Drainage occurs towards the northerly flowing section of the river. The groundwater level seems to be similar to that of the regional ground water level that is usually less than 10m below ground level. In areas where over exploitation of groundwater resources have occurred, groundwater level has dropped to 50m or more.

2.3.1.3 Geology and Geohydrology

The geology of the area is mainly surficial cover formed in situ on Malmesbury rocks as well as greywacke, phyllite, and quartzitic sandstone of the Tygerberg Formation, Malmesbury Group. Granite and deposits of the weathering products of granite, Cape Granite Suite as well as occasional ferricrete also occur. The soils are generally fairly deep, medium grade sands overlying clay or gravel. They are bleached, grey coloured sands, and are mostly of the Kroonstad soil form and Kd1000 soil family, as classified by the South African soil classification system. The depth below surface to the clay varies between 50 cm and 160 cm. The soils are limited by the low clay content and leaching of the upper soil horizons and therefore have a low water and nutrient holding capacity. They also have drainage limitations due to the underlying, largely impermeable clay. As a result they have a low to medium agricultural potential.

2.3.1.4 Surface Water Features

There is also a small dam and a tributary along the northern boundary of the property. The river consists of a poorly defined channel that is overgrown with reeds and invasive terrestrial grasses. Some small depressions occur along the river bank

and are vegetated with pond weed *Aponogeton distachyos;* arum lilies *Zantedeschia aethiopica*; goose daisies *Cotula coronopifolia;* clumps of rushes *Juncus kraussii* and sedges, *Scirpus maritimus*, the aquatic weed *Nasturtium officinale* and terrestrial grasses.

Secondary vegetation that occurs on previously cultivated land adjacent to the river is dominated by annual and perennial exotic grasses such as *Lolium multiflora* and *Pennisetum cladestinum* (kikuyu grass) and herbaceous plants. The exotic *Echium plantaginuem* is scattered among the grasses. Invasive Port Jackson willow (*Acacia saligna*) adjacent to the river channel has been cleared. Geophytes including Chincherinchees (*Ornithogalum thyrosoides)*, *Gladiolus longicollis* and Belladonna lilies (*Amaryllis belladonna*) were observed on site during the various assessments undertaken.

On the upper dry bank of the upper section there is still a good representation of indigenous vegetation such as wild olives *Olea capensis* and *Searsia spp.*

There are a number of frogs including the common platanna (*Xenopus laevis*) and birdlife such as grey heron (*Ardea cinerea*), yellow-billed ducks (*Anas undulata*), Egyptian geese (*Alopochen aegyptiaca*) and southern red bishops (*Euplectes orix*) have been recorded in the study area.

2.3.1.5 Flora

The site consists largely of transformed vegetation (mostly kikuyu grass). The vegetation types classified for the area are Swartland Shale Renosterveld on the eastern section of the site and Cape Flats Sand Fynbos closer to the river. Swartland Shale Renosterveld has about 9% left untransformed and 0.5% is formally protected. It is thus classified as being Critically Endangered and has the highest priority for conservation of all the remaining patches, existing in small pockets, scattered throughout the Swartland. No area of conservation value in terms of vegetation was identified on the site. Refer to Figure 8 for a biodiversity overlay map of the site and surrounding areas.

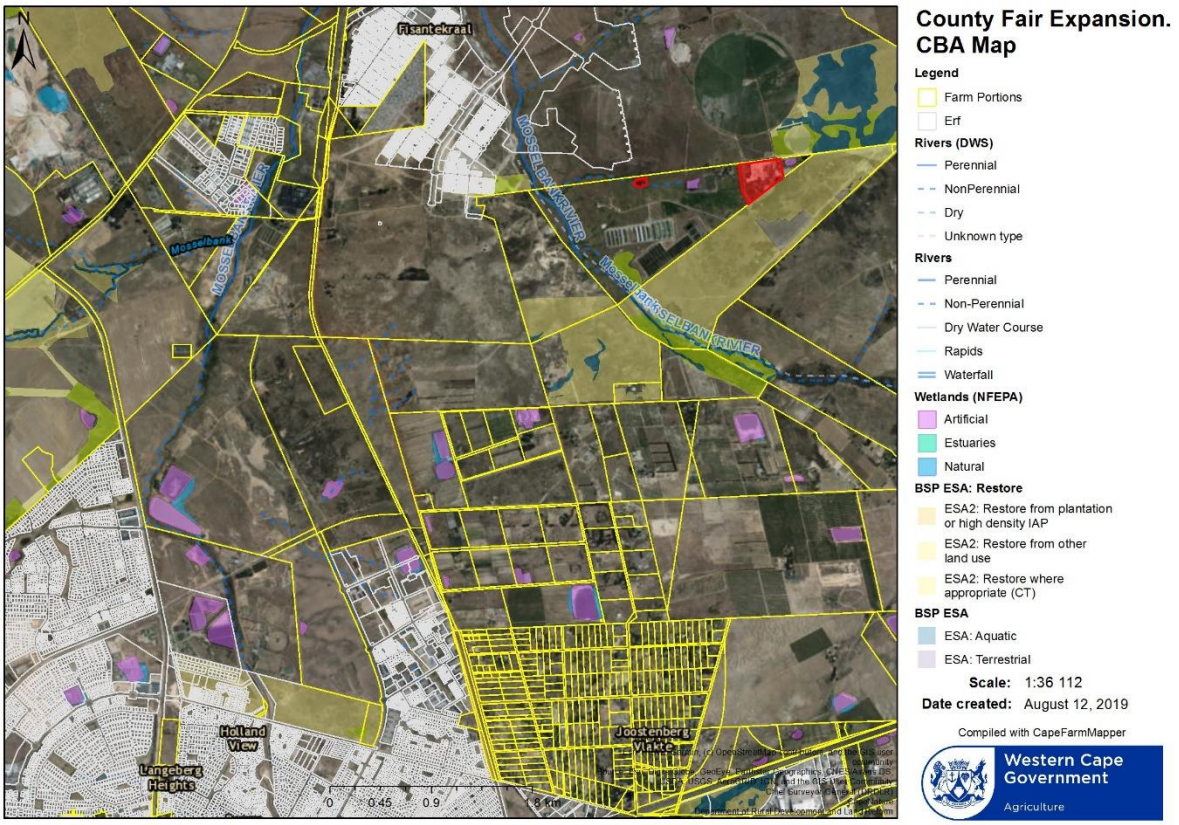


Figure 8a: CBA Map of the impacted areas indicated in red (City of Cape Town Bionet 2017).

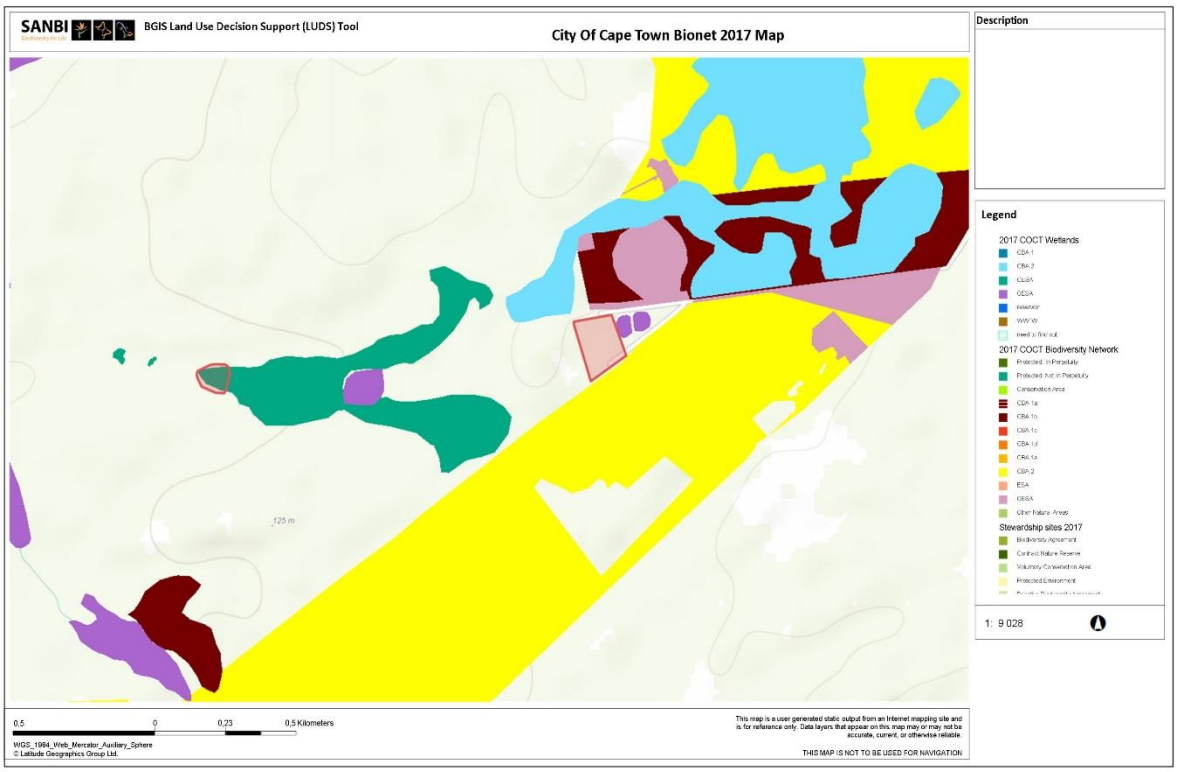


Figure 8b: CBA Map of the impacted areas indicated in red (City of Cape Town Bionet 2017).

2.3.2. Historical and Archaeological Characteristics

A Notice on Intent to Develop was submitted to the Heritage Western Cape ('HWC'), where after the HWC confirmed that since there is no reason to believe that the proposed development will impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required.

Refer to Appendix G: Other for a copy of the HWC NID as submitted and Record of Decision received.

2.3.3. Socio-Economic Elements

In 2011 the population (2011 Census) in the suburb Fisantekraal was 12 369 and the number of households was 3 711. The average household size was 3.33. A household is defined as a group of persons who live together, and provide themselves jointly with food or other essentials for living, or a single person who lives alone (Statistics South Africa).

Key results for 2011 Census Suburb Fisantekraal:

- The population is predominantly Black African (52%) and Coloured (47%).
- 17% of those aged 20 years and older have completed Grade 12 or higher.
- 73% of the labour force (aged 15 to 64) is employed.
- 73% of households have a monthly income of R3 200 or less.
- 43% of households live in formal dwellings.
- 68% of households have access to piped water in their dwelling or inside their yard.
- 71% of households have access to a flush toilet connected to the public sewer system.
- 93% of households have their refuse removed at least once a week.
- 69% of households use electricity for lighting in their dwelling.

Demographic Profile

Fisantekraal Population	Male		Female		Total	
	Num	%	Num	%	Num	%
Black African	3 324	26.9%	3 041	24.6%	6 365	51.5%
Coloured	2 756	22.3%	3 044	24.6%	5 800	46.9%
Asian	22	0.2%	20	0.2%	42	0.3%
White	38	0.3%	22	0.2%	60	0.5%
Other	80	0.6%	23	0.2%	103	0.8%
Total	6 220	50.3%	6 150	49.7%	12 370	100.0%

Fisantekraal Age	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
0 to 4 years	769	12.1%	694	12.0%	2	4.9%	6	9.8%	8	7.8%	1 479	12.0%
5 to 14 years	1 037	16.3%	1 216	21.0%	6	14.6%	5	8.2%	3	2.9%	2 267	18.3%
15 to 24 years	1 489	23.4%	1 052	18.1%	10	24.4%	13	21.3%	32	31.1%	2 596	21.0%
25 to 64 years	3 001	47.1%	2 724	47.0%	23	56.1%	36	59.0%	60	58.3%	5 844	47.2%
65 years and older	70	1.1%	115	2.0%	0	0.0%	1	1.6%	0	0.0%	186	1.5%
Total	6 366	100.0%	5 801	100.0%	41	100.0%	61	100.0%	103	100.0%	12 372	100.0%

Fisantekraal Adult Education (for all aged 20+)	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
No schooling	165	4.1%	258	7.6%	0	0.0%	0	0.0%	30	33.3%	453	6.0%
Some primary	648	16.2%	663	19.6%	12	44.4%	0	0.0%	9	10.0%	1 332	17.7%
Completed primary	297	7.4%	318	9.4%	3	11.1%	0	0.0%	0	0.0%	618	8.2%
Some secondary	2 109	52.8%	1 674	49.5%	6	22.2%	9	23.1%	30	33.3%	3 828	50.8%
Grade 12	705	17.6%	450	13.3%	6	22.2%	27	69.2%	21	23.3%	1 209	16.0%
Higher	69	1.7%	12	0.4%	0	0.0%	3	7.7%	0	0.0%	84	1.1%
Other	3	0.1%	6	0.2%	0	0.0%	0	0.0%	0	0.0%	9	0.1%
Total	3 996	100.0%	3 381	100.0%	27	100.0%	39	100.0%	90	100.0%	7 533	100.0%

Economic Profile

Fisantekraal Labour Force Indicators	Black African	Coloured	Asian	White	Other	Total
Population aged 15 to 64 years	4 488	3 777	36	45	90	8 436
Labour Force	3 210	2 691	21	30	66	6 018
Employed	2 160	2 109	18	27	63	4 377
Unemployed	1 050	582	3	3	3	1 641
Not Economically Active	1 278	1 086	15	15	24	2 418
Discouraged Work-seekers	63	30	0	0	6	99
Other not economically active	1 215	1 056	15	15	18	2 319

Rates %						
Unemployment rate	32.71%	21.63%	14.29%	10.00%	4.55%	27.27%
Labour absorption rate	48.13%	55.84%	50.00%	60.00%	70.00%	51.88%
Labour Force participation rate	71.52%	71.25%	58.33%	66.67%	73.33%	71.34%

Definitions:
Unemployment rate is the proportion of the labour force that is unemployed.
The labour absorption rate is the proportion of working age (15 to 64 years) population that is employed.
The labour force participation rate is the proportion of the working age population that is either employed or unemployed.

Note: Based on available data as supplied by Statistics South Africa, the people categorised as living in collective living quarters are included in the “Other not economically active” category.

Fisantekraal Monthly Household Income	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
No income	528	23.8%	180	12.5%	3	25.0%	0	0.0%	6	13.3%	717	19.2%
R 1 - R 1 600	693	31.2%	294	20.5%	0	0.0%	0	0.0%	9	20.0%	996	26.7%
R 1 601 - R 3 200	606	27.3%	369	25.7%	3	25.0%	3	20.0%	12	26.7%	993	26.6%
R 3 201 - R 6 400	279	12.6%	363	25.3%	3	25.0%	0	0.0%	12	26.7%	657	17.6%
R 6 401 - R 12 800	81	3.6%	189	13.2%	3	25.0%	3	20.0%	0	0.0%	276	7.4%
R 12 801 - R 25 600	21	0.9%	33	2.3%	0	0.0%	6	40.0%	6	13.3%	66	1.8%
R 25 601 - R 51 200	6	0.3%	6	0.4%	0	0.0%	3	20.0%	0	0.0%	15	0.4%
R 51 201 - R 102 400	3	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	0.1%
R 102 401 or more	6	0.3%	3	0.2%	0	0.0%	0	0.0%	0	0.0%	9	0.2%
Unspecified	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	2 223	100.0%	1 437	100.0%	12	100.0%	15	100.0%	45	100.0%	3 732	100.0%

Dwelling Profile

Fisantekraal Type of Dwelling	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Formal Dwelling	601	27.2%	942	65.8%	4	36.4%	14	93.3%	22	55.0%	1 583	42.7%
Informal dwelling / shack in backyard	406	18.3%	384	26.8%	2	18.2%	0	0.0%	12	30.0%	804	21.7%
Informal dwelling / shack NOT in backyard	1 152	52.1%	72	5.0%	3	27.3%	0	0.0%	2	5.0%	1 229	33.1%
Other	54	2.4%	34	2.4%	2	18.2%	1	6.7%	4	10.0%	95	2.6%
Total	2 213	100.0%	1 432	100.0%	11	100.0%	15	100.0%	40	100.0%	3 711	100.0%

Fisantekraal Tenure Status	Black African		Coloured		Asian		White		Other		Total	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Owned and fully paid off	1 006	45.5%	570	39.8%	3	27.3%	5	31.3%	3	7.5%	1 587	42.8%
Owned but not yet paid off	126	5.7%	81	5.7%	0	0.0%	5	31.3%	0	0.0%	212	5.7%
Rented	312	14.1%	338	23.6%	6	54.5%	4	25.0%	35	87.5%	695	18.7%
Occupied rent-free	556	25.1%	352	24.6%	1	9.1%	0	0.0%	2	5.0%	911	24.5%
Other	213	9.6%	91	6.4%	1	9.1%	2	12.5%	0	0.0%	307	8.3%
Total	2 213	100.0%	1 432	100.0%	11	100.0%	16	100.0%	40	100.0%	3 712	100.0%

The increase in population increases the need for food security. Chicken is a valuable protein source. Tydstroom Poultry (Quantum Foods) closed their abattoir and rendering facilities due to financial constraints experienced as a result of chicken meat imports. This resulted in chicken broiler farmers having to find another facility to slaughter their chickens. The increase in chicken to be slaughtered will result in more abattoir waste generation that needs to be treated. Hence the reason for the expansion of the rendering facility.

The existing facility provides a significant number of job opportunities which will increase with the expansions. Furthermore, the facility ensures financial and job security for companies supplying services and equipment to the abattoir and rendering facility.

The upgraded facilities will provide work for 2 000 persons per day.

2.3.4. Visual Elements

The proposed development will not be directly adjacent to any main roads and will be consistent with the adjacent and existing abattoir infrastructure and will therefore blend in with the existing residential environment of the town and is not expected to have a significant detrimental impact on the visual integrity/sense of place. The proposed structures will be designed in such a manner as to ensure that visual integrity of the area is maintained.

2.3.6 Existing Services

2.3.6.1 Electricity

ESKOM already supply electricity to the existing abattoir and the network has sufficient capacity to service the expansions. The new infrastructure will link up with this existing electrical network.

2.3.6.2 Roads

The proposed development will have access from the existing roads access road.

2.3.6.3 Water and Sewage

Water will be from the existing supply network and sewerage and effluent will be treated at the upgraded WWTW on site.

SECTION 3: NEED AND DESIRABILITY

3.1 NEED AND DESIRABILITY

The expansion will occur on an area zoned for this purpose as a result of the existing facilities on site. All expansions will occur inside the Agricultural Industrial zonation. The facility and expansions falls outside the urban edge and urban area. Expansions planned to the existing abattoir and rendering facility is situated in a rural area inside the City of Cape Town municipal area. The expansions are in line with the IDP and SDF due to the existence of the existing abattoir and rendering facility and zoning in place. The increase in population increases the need for food security. Chicken is a valuable protein source. Tydstroom Poultry (Quantum Foods) closed their abattoir and rendering facilities due to financial constraints experienced as a result of chicken meat imports. This resulted in chicken broiler farmers having to find another facility to slaughter their chickens. The increase in chicken to be slaughtered will result in more abattoir waste generation that needs to be treated. Hence the reason for the

expansion of the rendering facility. The existing facility provides a significant number of job opportunities which will increase with the expansions. Furthermore, the facility ensures financial and job security for companies supplying services and equipment to the abattoir and rendering facility. The expansions will result in an increase in water usage and effluent (waste water) generated. The existing site waste water treatment works will be upgraded to treat the extra generated effluent and the extra water can be provided. All infrastructures to the existing facility are provided by County Fair. The municipality does not provide any services and no upgrades to the existing services are needed in order to service the planned expansions. The expansions will not impact on any sensitive natural and cultural areas.

The chicken broiler farmers who have not closed their businesses will have a facility to slaughter their chickens. The potential impacts for both the construction and the operational phase have been identified in this report – this allows for the appropriate management and mitigation measures to be identified and implemented where and when necessary to prevent environmental degradation and promote sustainability. All decisions during the planning and assessment by all involved for the activity promote the integration of the principles of environmental management set out in section 2 to minimize and mitigate any significant effect on the environment. All these mitigations and management measures will be included as EA conditions and into the EMP. All involved in the planning and design identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage. The risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2 were taken in consideration and used in the assessments, mitigations and recommendations throughout this report. Adequate and appropriate opportunity for public participation was provided as per the guidelines and regulations in decisions that may affect the environment. The consideration of environmental attributes in management and decision making which may have a significant effect on the environment was ensured. The modes of environmental management best suited to ensure that a particular activity is pursued in accordance with the principles of environmental management set out in section 2, was identified and employed. The proposed development will not have a significant impact on biodiversity. The proposed development is situated next to existing facilities and will not disturb the landscape and sites that constitute the nation's cultural heritage. The proposed development will not exceed or exploit renewable resource to an extent that they reach a level beyond which their integrity is jeopardised.

3.2 OTHER REQUIREMENTS

3.2.1 Integrated Development Plan and Spatial Development Framework

All expansions will occur inside the Agricultural Industrial zonation. The facility and expansions falls outside the urban edge and urban area. Expansions planned to the existing abattoir and rendering facility is situated in a rural area inside the City of Cape Town municipal area. The expansions are in line with the IDP and SDF due to the existence of the existing abattoir and rendering facility and zoning in place.

3.2.2 Urban Edge and Planning Guidelines

The proposed expansions are outside the urban area and edge.

SECTION 4: ALTERNATIVES ASSESSMENT

Regulation 21(3) of EIA Regulations R982 of 2014 as amended requires that the Scoping Report include a description of any feasible and reasonable alternatives that have been identified. Regulation 1 of GN R982 as amended defines alternatives as follows:

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose
and requirements of the activity, which may include alternatives to the—
(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
and includes the option of not implementing the activity;

Refer to the Plan of Study in Section 7 below for a description of the alternatives assessment methodology. The alternatives considered for this project are described below.

4.1 PROPERTY AND LOCATION/SITE ALTERNATIVES

No other site alternatives were considered. The proposed area is the only alternative assessed. Applicable legislation and requirements for abattoirs and rendering facilities, the existing infrastructure and the needs were used to design the expansion infrastructure in order to link to the existing operations on site. No other feasible or reasonable site alternatives exist as the property belongs to County Fair and the application is to expand the existing facilities designated for the proposed development in terms of the approved SDF.

4.2 ACTIVITY ALTERNATIVES

No other activity alternatives were considered. The proposed area is the only alternative assessed. Applicable legislation and requirements for abattoirs and rendering facilities, the existing infrastructure and the needs were used to design the expansion infrastructure in order to link to the existing operations on site. No other feasible or reasonable activity alternatives exist as the property belongs to County Fair and the application is to expand the existing facilities designated for the proposed development in terms of the approved SDF.

4.3 DESIGN OR LAYOUT ALTERNATIVES

Layout or design alternatives were considered. The layout and design of an abattoir is regulated by the Meat Safety Act. The expansions were designed within the parameters stipulated in the Meat Safety Act. The layout and design attached is the

preferred layout. Alternative layouts were not considered as it is not feasible or reasonable as other designs will not meet the requirements stipulated in the Meat Safety Act. The upgrades to the WWTW were guided by the existing facility and infrastructure. The use of the existing dams with alternations and operational changes to them were used in the design.

4.4 TECHNOLOGY ALTERNATIVES

Technological alternatives were considered. The technology used in an abattoir is regulated by the Meat Safety Act. The expansions were designed within the parameters stipulated in the Meat Safety Act. Alternative technologies were not considered as it is not feasible or reasonable as other technologies will not meet the requirements stipulated in the Meat Safety Act.

4.5 OPERATIONAL ALTERNATIVES

No operational alternatives were considered as the proposed activity is for the slaughter of animals. Abattoir operational requirements are regulated by the Meat Safety Act. The WWTW operations cannot be altered. Aerators were added to the existing facility to improve the water quality of the treated effluent as well as the one dam will be subdivided in two to ensure longer retention time.

4.6 THE OPTION OF NOT IMPLEMENTING THE ACTIVITY (THE NO-GO OPTION)

The No-Go option will result in the site remaining as it is presently and the existing abattoir will not be expanded.

SECTION 5: PUBLIC PARTICIPATION PROCESS

5.1 INTRODUCTION

Public participation is an integral part of the environmental assessment process, and affords potentially interested and affected parties (I&APs) an opportunity to participate in the EIA process, or to comment on any aspect of the development proposals. The public participation process to be undertaken for this project complies with the requirements of the EIA Regulations. The description of the public participation process as included below itemizes the steps and actions undertaken to date and as appropriate at this stage of the project.

5.2 IDENTIFICATION AND REGISTRATION OF KEY DEPARTMENTS AND OTHER I&APS

Liaison with the relevant authorities plays a crucial role in the successful completion of any environmental assessment process. In addition to the DEA&DP, the key departments such as the provincial departments having jurisdiction in respect of any aspect of the project, the local municipality and municipal councillor as well as other potentially affected I&APs, including adjacent property owners and dwellers, were identified.

The parties listed in the table below were identified as potential I&APs to date as per the requirements of the Regulation 42 of R982 of 2014 as amended. A list with complete details of the I&APs is kept by the EAP and will be updated as the project progresses. Refer to Appendix D.

Table 3: Key Departments identified to date

Organisation
1. CapeNature
2. Department of Agriculture (provincial and national)
3. Heritage Western Cape
4. Department of Water and Sanitation
5. City of Cape Town
6. DEA&DP: Waste Management
7. DEA&DP: Pollution & Chemicals Management
8. Department of Transport and Public Works
9. Department of Environmental Affairs (Competent Authority: Waste License)
10. Department of Environmental Affairs and Development Planning: Directorate: Development Management (Region 1); (Competent Authority: EA)

5.3 NOTIFICATION OF I&APS

Potential I&AP's were notified about the project. The notification took place in the following manner (this is in compliance with Regulation 41 of the EIA Regulations, 2014) as amended.

- Fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of the site where the activity to which the application relates is or is to be undertaken and any alternative site;
- Written notifications sent to potential I&APs inviting them to register and give comments on the proposed development. These notifications were in line with the requirements of Regulation 41 of GN R982 of 2014 as amended; and
- Placing an advertisement in the local newspaper in compliance with Regulation 41(2)(c)(i) of GN R982 of 2014 as amended.

All potential I&APs are afforded the opportunity to register for the project. All registered I&APs will be informed of further activities regarding the project.

5.4 PUBLIC MEETINGS AND WORKSHOPS

No public meetings have been held as of yet. A public participation meeting will be held if requested by any of the registered I&APs and/or key departments.

5.5 AVAILABILITY OF THE SCOPING REPORT

The pre-application Scoping Report was made available to all registered I&APs and key departments for a 30 day commenting period. All comments received were included and addressed under Appendix D: Public Participation Process of the Draft Scoping Report.

As per the requirements of Regulation 43 of GN R982 of 2014 as amended, the Draft Scoping Report was made available for a further 30 day commenting period.

Electronic copies (CDs) was made available to any registered I&APs upon request.

Proof of delivery and document placement is attached to the Scoping Report under Appendix D.

5.6 COMMENTS AND REPONSES DURING THE SCOPING PHASE

Comments received will be responded to as per the requirements of Regulation 44 of GN R982 of 2014 as amended. The comments and response report as well as all comments received are attached to the Scoping Report under Appendix D.

5.7 PUBLIC PARTICIPATION DURING THE EIA PHASE

Public participation during the EIA phase involves submitting the draft EIR to the registered I&AP's and Key Departments for a 30 day period to discuss the findings of the report. Once all comments have been received, the EIR will be finalised taking into account the comments.

The final EIR will then be submitted to the DEA&DP for approval. As per the requirements of GN R982 of 2014 as amended, should any additional comments be received during this stage, these will be submitted to DEA&DP.

5.8 DECISION AND APPEAL PERIOD

Once DEA&DP has reviewed the final EIR and are satisfied that it contains sufficient information to make an informed decision, they will use the information contained within the EIR to determine the environmental acceptability of the applicant's preferred options. A decision on the applications and associated reports will be made by the DEA&DP based on the findings of the EIR.

Following the issuing of the decision, I&APS will be notified. All I&APs will be provided with the opportunity to appeal the decision to the Minister in terms of the NEMA.

SECTION 6: ENVIRONMENTAL ISSUES IDENTIFIED TO DATE

The potentially significant impacts associated with the proposed development have been identified by the specialist/s and EAP. Issues identified by Key Departments and I&APs will be taken into account in the determination of impacts. A detailed impact assessment and environmental impact statement will be provided in the EIA. The assessment will be based on the criteria as set out below in the Plan of Study (PoS).

6.1 POTENTIAL CONSTRUCTION PHASE IMPACTS

- Possible impacts on soil where soil disturbances will occur

- Increased erosion risk due to the clearing of land for the proposed development leading to increase in storm water flow
- Water quality of the downstream water bodies may be affected due to storm water flow from construction site
- Air quality in terms of dust generated by the clearing of land
- Social aspects – smells and aesthetic quality
- Temporary job creation
- Traffic Impacts
- Noise Impacts
- Heritage Impacts
- Planning and Services provision impacts
- Production/generation of construction waste
- Storm water Management Impacts

6.2 POTENTIAL OPERATIONAL PHASE IMPACTS

- Erosion risk or surrounding areas due to hardened developed areas
- Hydrological impacts i.e. water quality of the water draining into the drainage line from the development area
- Biodiversity/ecological impacts on adjacent Mosselbank River
- Storm water Management Impacts
- Traffic Impacts

6.3 CLOSURE AND DECOMMISSIONING PHASE IMPACTS

It is not anticipated that decommissioning will occur in the near future. Should decommissioning occur, the expected impacts are similar to those listed in the construction phase above with the additional positive impact of rehabilitating the decommissioned area to a near natural/indigenous state and negative impact of destroying houses and services infrastructure. Impacts must be mitigated and managed according to the best practise techniques/management measures available for that time.

SECTION 7: PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

7.1 TASKS TO BE UNDERTAKEN

The EIA report is informed by the scoping phase. Should the need for specialist studies be identified, input from specialists will be obtained to further advise on the potential impacts that may occur due to the proposed activities. The specialists will identify opportunities and constraints as associated with the site and the proposed development and provide their input to the concept design.

The following steps will be undertaken as part of the EIA phase:

- **Alternatives will be further investigated**, in a re-iterative manner, so as to avoid or minimize negative impacts and maximize potential benefits; The entire project team, including the specialist consultants, will be involved in the

evaluation of alternatives;

- **Detailed Impact Assessment**:
  Statements regarding the potential significance of residual impacts, taking into account proposed mitigation measures will be provided in the EIA;

- **Engineer Inputs**:
  - A site specific Construction and Operational Stormwater Management Plan must be provided by the engineers.

- **An Environmental Management Programme (EMP)** covering construction, operational and decommissioning phases of the proposed development will be prepared after input from specialists, incorporating recommendations for mitigation, monitoring and evaluation are received. Specific issues to be addressed in the EMPr as per recommendations of key departments/organ of state and I&APs include:
  - Site specific stormwater management plan (for construction and operational phase)
  - Detailed construction management requirements.
  - Detailed operational management requirements i.e. stormwater, erosion, alien vegetation, grazing, litter control and access to the development.
  - Waste management (and associated pollution prevention/mitigation)
  - Heritage resources management
  - Air quality management

- **Specialist Assessments**:
  - Water Use Risk Assessment Matrix will be drafted using the Freshwater Impact Assessment conducted for the property during the WWTW expansion and full assessments and mitigation measures of all aspects will be included directly in the EIR report.
  - An Air Quality/Odour Impact Assessment with Dispersion Modelling must be undertaken to address the possible increase in air quality impacts on the receiving environment. This assessment must be conducted in accordance with the Dispersion Modelling Regulations, Regulation No. R533 of 11 July 2014. In this study the the capacity of the odour abatement equipment will also be assessed and management and mitigation requirements, as well as equipment needed to effectively manage the odour and emissions impacts will be determined.

- **Water Use Authorisation Application**:
  Following the comments received on the scoping report and the pre-application meeting held with the DWS a Water Use Risk Assessment Matrix (as informed by the Freshwater Impact Assessment) is to be completed and submitted to the DWS for perusal. Following the findings of the Water Use Risk Assessment Matrix (as informed by the FIA) the DWS will amend the existing license.

7.2 CONSULTATION WITH COMPETENT AUTHORITY

DEA&DP: Development Management as the Competent Authority regarding the Environmental Authorization application will be consulted throughout the application

process. Department of Environmental Affairs: as the Competent Authority regarding the Waste License application will be consulted throughout the application process. City of Cape Town as the Competent Authority regarding the variation to the Atmospheric Emissions License application will be consulted throughout the application process.

All documentation (Draft and Final) will be sent to DEA&DP, DEA and City of Cape Town. Communication with DEA&DP, DEA and City of Cape Town will be attached to the documents to be submitted.

7.3 ASSESSMENT OF ENVIRONMENTAL ISSUES AND ALTERNATIVES

The objective of an impact assessment is to find the alternative having the least negative environmental impact, and which best benefits society. The assessment and evaluation of potential impacts associated with the development would thus be undertaken in a re-iterative manner, to optimally inform pro-actively the development proposal. The following methodology for assessing alternatives has been developed and will be used during the application process.

GN R982 of 2014 as amended requires, in part, that the Scoping and EIA Reports include a description of any feasible and reasonable alternatives that have been identified. Regulation 1 of GN R982 of 2014 as amended defines alternatives as follows:

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

(a) the property on which or location where it is proposed to undertake the activity (alternative properties as well as alternative sites on the same property)*;*
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity (consideration of such alternatives is to include the option of achieving the same goal by using a different method or process)*; and*
(e) the operational aspects of the activity;

The following additional alternative types (as applicable to this project) have also been suggested for inclusion, where applicable, by both the Department of Environmental Affairs (DEA) and the Department of Environmental Affairs and Development Planning (DEA&DP) in their EIA guidelines and information documents on alternatives. These alternatives are discussed where applicable.

- Demand - when a demand for a certain product or service can be met by some alternative means;
- Input - applicable to applications that may use different raw materials or energy sources in their process;
- Scheduling and Timing - a number of measures might play a part in an overall programme, but the order in which they are scheduled will contribute to the overall effectiveness of the end result; and

- Scale and Magnitude - activities that can be broken down into smaller units and can be undertaken on different scales, each may have a different impact.

These were considered as well.

All the above alternative types, including the no-go option (i.e. the option of not implementing the activity) have been investigated according to the methodology described below.

7.3.1 Alternative determination methodology

Alternatives are described in terms of the various types of alternatives ("alternative types") as listed above, as well as the proposed and alternative project activity(ies) ("project alternatives") which includes a combination of all the separate factors. Both the identification, investigation, and assessment of alternatives, and the generation and consideration of modifications and changes to activities must be well documented. A reasoned explanation as to why an alternative was or was not found to be reasonable and feasible has been provided for each alternative type. The criteria in Table 4 were used during the identification and assessment of alternatives.

7.3.2 Role of the various parties in the consideration of alternatives

7.3.2.1 The role of the Applicant

- Consider the strategic planning and environmental context within which the development and alternatives are to be considered;
- Consider all feasible and reasonable alternatives (not only the preferred option); and
- Provide the EAP with access to all information at the disposal of the applicant regarding the application.

Table 4: Alternatives assessment methodology

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
Identification of alternatives	Alternatives have been identified as early as possible in the process (planning and design phase). Alternatives will further be considered and assessed throughout the project life as amendments to the alternatives are made. Assessment of the alternatives will only cease once final alternatives have been decided upon. These will be the final alternatives for which Environmental Authorisation will be applied for. The identification of alternatives should be broad, objectively done and well documented.	Due to the nature of the project, not all alternative types as listed above could be assessed as some of the activities have only one option for implementation. Where possible, alternatives were considered.
Comparative assessment	The project alternatives will be determined according to the alternative	

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
	types identified as feasible and reasonable and assessed comparatively.	
Reasonability and feasibility	All alternatives were considered in terms of reasonability, feasibility, practicability, relevancy and viability. As determined throughout the process, not all alternatives will be reasonable or feasible. These will in subsequent reports be mentioned as being considered but will not be described in detail.	Only alternatives considered reasonable and feasible at the scoping phase have been included in this report. Alternatives discarded prior to this phase have not been included and will not be considered further.
Sustainability considerations and effectiveness of alternatives	The alternatives identified have taken into account the triple bottom-line of sustainability i.e. meeting the socio-economic and ecological needs of the public. The alternatives aim to maximise the benefits and avoid or minimise the negative impacts. The primary objective has been to avoid all negative impacts (where possible), rather than to minimise them. The alternatives further took into consideration the need to maximise resource use efficiency.	Alternatives with regards to the proposed development considered the best practical environmental option in terms of timeframes and implementation methods/ designs.
Discrete vs. incremental alternatives	Initial alternatives identified, also known as discrete alternatives were identified during the early stages of a project (pre-feasibility and feasibility) and comparatively assessed during the assessment phases. During subsequent consideration, as the project progresses, incremental modifications and changes to activities will occur. These incremental changes will be considered during the amendment to the project activities during project progression. Impacts and issues of these changes will also be considered, as and when they are identified	
Advantages and disadvantages	For each alternative, the related advantages and disadvantages have been considered for each alternative type. These have not been discussed in terms of the project alternatives.	
Impacts and aspects	Impacts and aspects related to the implementation of each alternative are listed with the alternative type descriptions. Detailed impacts are described for each project alternative. The aim is to address the key impacts of	Main impacts identified to be considered in determining alternatives are as follows: • Biological aspects • Hydrological aspects

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
	the proposed alternative by maximising benefits and avoiding or minimising the negative impacts. The primary objective must be to avoid all negative impacts, rather than to minimise them.	• Health and safety • Social aspects
Other considerations	The "feasibility" and "reasonability" of and the need for alternatives should be determined by considering, amongst others: (a) the general purpose and requirements of the activity; (b) need and desirability; (c) opportunity costs; (d) the need to avoid negative impact altogether; (e) the need to minimise unavoidable negative impacts; (f) the need to maximise benefits;, and (g) the need for equitable distributional consequences. Also refer to Section 4 for a detailed description of the need and desirability of the project.	The need and desirability of the project took into account various strategic planning documents applicable to the area as well as socio-economic priorities. This determined the feasibility and reasonability of the project. The need and desirability influenced the timeframes and design specifications considered for the project.
I&APs	I&APs have to be notified of both the preferred and alternative activities. They should also be allowed to comment on both.	Public participation will be undertaken in line with the requirements of Regulations 39 to 44 of GN R982 of 2014 as amended.
No-go option	The option of not implementing the activity has been to the same level of detail as the other feasible and reasonable alternatives.	The option of not proceeding with the activity (no-go option) provides a reliable baseline against which to compare and evaluate feasible and reasonable alternatives.

7.3.2.2 The role of the EAP

- Consider the strategic planning and environmental context within which the development and alternatives are to be considered;
- Identify, investigate and assess alternatives;
- Afford opportunities for interested and affected parties to provide input into the identification, investigation and assessment of alternatives;
- Disclose all information relevant to the consideration of alternatives to the applicant and competent authority;

- Document the process of identification, investigation and assessment of alternatives (including providing the methodology and criteria used, and how the level of investigation applied to each alternative was established); and
- Provide a comprehensive consideration of the impacts of each of the alternatives assessed.

7.3.2.3 The role of specialists

- Assess impacts, especially the direct footprint as well as indirect and potential cumulative impacts of the development;
- Take into account the context and the intensity of the impact as related to their specific field of expertise;
- Highlight any impacts that could be irreversible or result in an irreplaceable loss of resource;
- Evaluate the significance of residual impacts associated with the proposed development, taking into account scientific information, local community and societal values attached to the environment as being impacted upon;
- Use accepted or formal standards, thresholds or targets for environmental quality, where available, as a key indicator of potential significance, since these measures reflect societal values. Where these benchmarks are absent, specialists should draw on a combination of criteria used to assess potential impacts, to indicate their potential significance, as well as feedback from key stakeholders; and
- Assess and respond to all comments made by Key Departments and Registered I&Aps

7.3.2.4 The role of I&APs

- Declare their interests;
- Assist in the identification, investigation and assessment of alternatives, particularly where local knowledge is required;
- Within the specified timeframes, provide comment on the consideration of alternatives.

7.4 CRITERIA FOR ASSESSMENT OF IMPACTS

Below is the assessment methodology utilized in determining the significance of the construction, operational and decommission impacts of the proposed activities, and where applicable the possible alternatives, on the biophysical and socio-economic environment. The methodology is broadly consistent to that described in Integrated Environmental Management Series.

For each impact, the significance is determined by various factors. Significance is described prior to mitigation as well as with the most effective mitigation measure(s) in place.

The mitigation described in the Environmental Management Programme (EMP) document, to be attached to the EIA, represents the full range of plausible and pragmatic measures *but does not necessarily imply that they all should or will be*

implemented. The decision as to which mitigation measures to implement lies with the applicant and ultimately with the competent authority. To facilitate informed decision-making, EIAs must endeavour to come to terms with the significance of the potential environmental impacts associated with particular development activities. Despite the attempts at providing a completely objective and impartial assessment of the environmental implications of development activities, EIA processes can never completely escape the subjectivity inherent in attempting to define significance. Recognising this, potential subjectivity in the EIA process will be addressed as follows:

- Be clear about the difficulty of being completely objective in the determination of significance;
- Develop an explicit methodology for assigning significance to impacts and outlining this methodology in detail. Having an explicit methodology not only forces the assessor to come to terms with the various facets contributing toward determination of significance, thereby avoiding arbitrary assignment, but also provides the reader of the EIA Report with a clear summary of how the assessor derived the assigned significance; and
- Wherever possible, differentiating between the likely significance of potential environmental impacts as experienced by the various affected parties.

Although these measures may not totally eliminate subjectivity, they do provide an explicit context within which to review the assessment of impacts.

Table 5: Assessment criteria for the evaluation of impacts

Criteria	**Description**		
Nature	A description of what causes the effect, what will be affected, and how it will be affected.		
	Type	**Score**	**Description**
Extent (E)	None (No)	1	Footprint
	Site (S)	2	On site or within 100 m of the site
	Local (L)	3	Within a 20 km radius of the centre of the site
	Regional (R)	4	Beyond a 20 km radius of the site
	National (Na)	5	Crossing provincial boundaries or on a national / land wide scale
Duration (D)	Short term (S)	1	0 – 1 years
	Short to medium (S-M)	2	2 – 5 years
	Medium term (M)	3	5 – 15 years
	Long term (L)	4	> 15 years
	Permanent(P)	5	Will not cease
Magnitude (M)	Small (S)	0	will have no effect on the environment
	Minor (Mi)	2	will not result in an impact on processes
	Low (L)	4	will cause a slight impact on processes
	Moderate (Mo)	6	processes continuing but in a modified way
	High (H)	8	processes are altered to the extent that they temporarily cease

Criteria	Description		
	Very high (VH)	10	results in complete destruction of patterns and permanent cessation of processes.
Probability (P) the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned	Very improbable (VP)	1	probably will not happen
	Improbable (I)	2	some possibility, but low likelihood
	Probable (P)	3	distinct possibility
	Highly probable (HP)	4	most likely
	Definite (D)	5	impact will occur regardless of any prevention measures
Significance (S)	Determined through a synthesis of the characteristics described above: **S = (E+D+M) x P** Significance can be assessed as low, medium or high		
Low: < 30 points:	The impact would not have a direct influence on the decision to develop in the area		
Medium: 30 - 60 points:	The impact could influence the decision to develop in the area unless it is effectively mitigated		
High: < 60 points:	The impact must have an influence on the decision process to develop in the area		
No significance	When no impact will occur or the impact will not affect the environment		
Status	Positive (+)		Negative (-)
The degree to which the impact can be reversed	Completely reversible (R)	90-100%	The impact can be mostly to completely reversed with the implementation of the correct mitigation and rehabilitation measures.
	Partly reversible (PR)	6-89%	The impact can be partly reversed providing that mitigation measures as stipulated in the EMP are implemented and rehabilitation measures are undertaken
	Irreversible (IR)	0-5%	The impact cannot be reversed, regardless of the mitigation or rehabilitation measures taking place
The degree to which the impact may cause irreplaceable loss of resources	Resource will not be lost (R)	1	The resource will not be lost or destroyed provided that mitigation and rehabilitation measures as stipulated in the EMP are implemented
	Resource may be partly destroyed (PR)	2	Partial loss or destruction of the resources will occur even though all management and mitigation measures as stipulated in the EMP are implemented
	Resource cannot be replaced (IR)	3	The resource cannot be replaced no matter which management or mitigation measures are implemented.
The degree to	Completely	1	The impact can be completely mitigated

Criteria	Description		
which the impact can be mitigated	mitigatible (CM)		providing that all management and mitigation measures as stipulated in the EMP are implemented
	Partly mitigatible (PM)	2	The impact cannot be completely mitigated even though all management and mitigation measures as stipulated in the EMP are implemented. Implementation of these measures will provide a measure of mitigatibility
	Un-mitigatible (UM)	3	The impact cannot be mitigated no matter which management or mitigation measures are implemented.

Cumulative impact: Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of similar developments already on the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Degree of confidence in predictions: The specialist should state what degree of confidence (low, medium or high) is there in the predictions based on the available information and level of knowledge and expertise.

7.5 PUBLIC PARTICIPATION PROCESS

Public participation processes will be undertaken as follows:

- The public and adjacent neighbours will be further advised as to the application process underway;
- Responding members of the public and neighbours (I&APs) are registered to the application data base and will be informed throughout the Scoping – EIA process;
- Registered I&APs will be appraised of the draft and final Scoping Reports and Plan of Study for EIA; and
- During the EIA phase, the draft EIA Report will be open for comment and input from registered I&APs.

The project team will evaluate any comment and input as may be forthcoming and will respond as appropriate to issues and concerns as raised by I&APs.

Should amendments to any Draft Reports be substantive, or should the Final Report contain substantive information that was not included in the Draft Report, registered I&APs will be afforded an opportunity to again comment on the Final Report before it is submitted to the competent authority as provided for by Regulation.

Once all comments have been addressed, the Final EIA Report will be submitted to the competent authority for evaluation.

7.6 TERMS OF REFERENCE (TOR) FOR SPECIALIST STUDIES TO BE UNDERTAKEN IN THE EIA PHASE

The specialists will be provided with set criteria for undertaking their assessments, to allow for comparative assessment of all issues, inclusive of input as received from IA&Ps. These criteria are inclusive of the need to consider the no go option as the base line option. The terms of reference provided to the specialists will be included in the specialist's reports to be provided as part of the EIA phase. These criteria are informed by the EIA Regulations: Guideline and Information Document Series. Specialists must also comply with Regulation 23 of the EIA Regulations.

The following specialist assessments are to be conducted/ provided during the EIA phase:

- Water Use Risk Assessment Matrix
- Storm water management Plan

SECTION 8: ASSUMPTIONS AND LIMITATIONS

8.1 ASSUMPTIONS

The assumption is that the information on which the report is based (such as base line studies and project information, as well as existing information) is correct. The baseline information provided is preliminary and may need more detailed investigation, which will form part of the subsequent stages of the Scoping - EIA process. Statements or indicators of significance must be considered in the light of uncertainty regarding the extent and significance of such resources on the site.

8.2 LIMITATIONS

This report is based on currently available information and, as a result, the following limitations are implicit:

- The report is based on a project description taken from design specifications for the proposed development that have not yet been finalised, and which may undergo a number of iterations and refinements before they can be regarded as definitive;
- A project description based on the final design will be provided in the EIA Phase; and
- Descriptions of the natural and social environments are based on limited fieldwork and local knowledge as well as available literature.

More information will be provided in the EIA phase based on the outcomes of the specialist studies.

SECTION 9: CONCLUSION

The proposed development is necessary in order to allow for the expansion of the abattoir to meet the demands and supply in the growth of the population.

The EIA phase will determine the most feasible alternatives according to the results of the specialist studies as well as the input from all I&APs and key departments. Detail impacts will be determined accordingly and appropriate management and mitigation measures provided.

SECTION 10: REFERENCES

Department of Agriculture, Forestry and Fisheries. Cape Farm Mapper 17/08/2019