



**THE PROPOSED EXPANSION OF CHICKEN HOUSES FROM APPROXIMATELY 30 000 TO 60 000 CHICKENS, BULHOEK FARM, NEAR SWARTRUGGENS, NORTHWEST PROVINCE**

**Waste Management Plan**

February 2022

**Prepared for:**



**Prepared by:**

Megan Smith  
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Today's Impact | Tomorrow's Legacy

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## **1. INTRODUCTION**

Quantum Foods (The Applicant) appointed Enviroworks, an Independent Environmental Assessment Practitioner (EAP) to undertake the required

- Basic Assessment Process for the intended Waste Management License and Environment Authorisation, and
- Water Use License Application

for the proposed construction of eight (8) chicken layer houses and twenty (20) evaporation ponds, and the usage of three (3) boreholes for a Poultry Farm on Portion 0 of Erf no. 389 and Portion 40 of Erf no. 393, North West Province.

Included in the above applications is the requirement of a Waste Management plan requested by the North West Department of Economic Development, Environment, Conservation & Tourism

The project applicant, Quantum Foods, currently operates twelve (12) chicken layer houses at their existing poultry farm, located between the town of Swartruggens and the city of Rustenburg, North West Province.

The applicant now proposes the expansion of the poultry farm from approximately 30 000 to 60 000 chickens (rounded up), by developing eight (8) additional new layer houses and twenty (20) evaporation ponds. Six (6) of these proposed new layer houses will be constructed directly adjacent to the existing houses, while merely two (2) will be located at a separate location, at the existing facility. The layer houses are deemed to mainly operate as isolated units from their surrounding undeveloped environments.

In accordance with the information received from the farm manager during the site assessment, the layer houses get washed out twice annually. This process constitutes the following main two steps:

Manure and other undesired waste products are manually, thoroughly cleaned out of the layer houses and then adequately and safely removed from site, by a contracted third party. The manure is used by an external farmer for agricultural fertiliser.

The floors of the layer houses are then additionally sprayed clean with chemically treated water, with the use of pressure hoses.

This is done in order to ensure complete removal and neutralisation of all undesired waste products from the layer houses.

All wash water emanating from these twice-annual layer house wash-out processes (approximated to use 13 000 litres of water per house per annum), are currently disposed of into the surrounding undeveloped environments. Quantum Foods now proposes the development of twenty (20) lined and impermeable evaporation ponds (each being 25m<sup>2</sup> and 1.2 m deep) to treat the wash water. The purpose of the evaporation ponds will be to ensure adequate containment and subsequent evaporation of all wash

water. This will prevent wash water contact with- and potential contamination of the surrounding undeveloped environments.

The chemicals associated with cleaning the chicken houses have been included in Appendix G. These chemicals are Peroxysan, Hyposan, Foamcleaner, Viroclear, Cleanclear and Triazolol. These chemicals are not hazardous, most of them do not present toxic characteristics, are not carcinogenic, has little to non-eco-toxicological effects, hazardous polymerization will not occur, and some are bio-degradable.

Therefore, the waste associated from washing the chicken houses can be classified as non-hazardous. This based on the Material Safety Data Sheets for the chemicals.

It is predicted that only dirt (i.e., soil and windblown sand) and dried, non-infectious chicken manure are currently by products of the wash (besides the cleaning agent).

In terms of water usage, the water sources currently used on site, constitute three (3) boreholes that supply approximately 228 742.31 m<sup>3</sup>/month. The three (3) water reservoirs currently present on site, have a capacity of approximately 100 000 litres.

In terms of sewage, the facility has three (3) septic tanks on site that will be serviced as needed (twice a year) by a honeysucker and disposed of accordingly. No new septic tanks will be constructed.

The chicken farm currently operates on the Eskom grid.

## **1.1 PURPOSE**

The purpose of this Waste Management Plan (WMP) is to provide guidance to ensure that general and hazardous waste is managed at site in a way that is protective of health, safety and the environment.

## **1.2 SCOPE**

This waste management plan is for the operation of Bulhoek Farm and the construction of eight (8) new chicken houses and twenty (20) evaporation ponds on Bulhoek Farm, North West Province.. The plan outlines measures to achieve the following purposes:

- Avoid the generation of unnecessary waste;
- Minimising the quantities of wastes generated ending up as landfill;
- Recovering, reusing and recycling waste generated on site where possible;
- Compliance with legislation and policies that may apply to the development.

## **1.3 OBJECTIVES**

The objective of this WMP is to:-

- Formalise waste handling, transfer and disposal activities associated with waste from the depot;
- To prevent inappropriate management of waste and associated risk of pollution of the environment;

- To facilitate waste minimisation entailing avoidance, reduction, reuse, recycling or treatment before disposal;
- To streamline waste segregation, storage, and disposal and promote resource recovery from waste;
- To contain, control and dispose of waste in accordance with the required waste management practices (e.g. waste segregation);
- To define responsibility for waste management at the various levels of operation associated with the maintenance activities;
- To provide a framework for the selection of waste management service providers in line with cradle to grave principles.

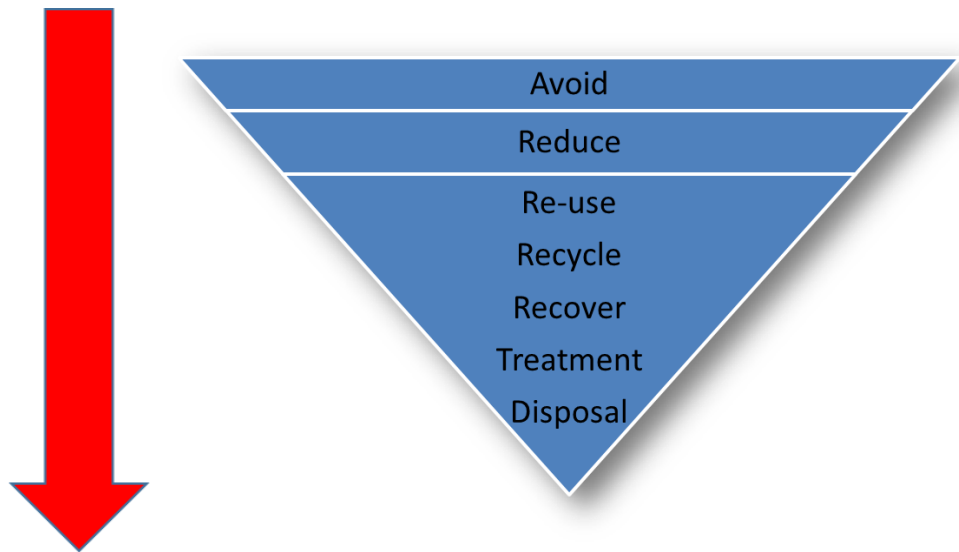


Figure 1: The Waste Management Hierarchy

The Waste Management Hierarchy should be implemented during the maintenance activities of the project wherever possible.

## 2. POLICIES AND LEGISLATION

ACT	MAIN REQUIREMENTS	CONTROLLING AUTHORITY
<b>Environment Conservation Act 73 of 1989</b>		
Sections 19, 20, 21, 22, 24, 25 of the Act	These sections cover definitions, prohibitions, regulations, procedures for permit applications, regulatory powers, offences and penalties, forfeiture and delegator powers.	Department of Environmental Affairs
<b>Water Act 36 of 1998</b>		

ACT	MAIN REQUIREMENTS	CONTROLLING AUTHORITY
Sections 1, 19 of the Act	These sections cover the prevention of pollution by effluent, storm water control, location of waste sites, offences and penalties, policies and strategies	Department of Water and Sanitation
<b>Health Act 63 of 1977</b>		
Sections 1, 20(1), 38, 39, 40, 57 of the Act	These sections cover definitions, prevention of pollution of water for human consumption, regulations regarding communicable disease and relating to rubbish, soil, nuisances, offences and penalties.	Department of National Health and Population Development
<b>Air Quality Act 39 of 2004</b>		
Sections 1, 17,18, 19, 20, 27, 28, 33 of the Act	These sections cover definitions, prevention of burning, smoke control, smoke and dust control areas and regulations	Department of Environmental Affairs and relevant provincial departments
<b>Occupational Health and Safety Act 85 of 1993</b>		
Sections 1, 3, 4, 10, 11, 12, 13, 14, 15, 16 of the Act	With particular reference to hazardous chemical substances these sections cover definitions, general duty of care, control of exposure, protection and maintenance of equipment, prohibitions, transport and storage, disposal, offences and penalties.	Department of Labour

*Table 1: Legislation applicable to the waste management plan*

### 3. WASTE MATRIX

TABLE 2: WASTE MATRIX COMPILED FOR THE OPERATION AND CONSTRUCTION ACTIVITIES

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
General Waste (Construction, chicken manure and domestic waste)	Currently implemented and will be required for expansion.	<p>The following items can be disposed of under general waste:</p> <ul style="list-style-type: none"> <li>• Plastics</li> <li>• Chicken manure</li> <li>• Paper</li> <li>• Glass</li> <li>• Concrete debris <b>(only to be produced during construction phase of the project).</b></li> </ul>	Non-hazardous	<ul style="list-style-type: none"> <li>• Limit use of paper</li> <li>• Where feasible, paper should be collected for recycling.</li> <li>• Order minimum required quantity of concrete</li> </ul>	<p>Collect waste in baskets, bags, drums or dumpsters placed on site. Domestic waste is currently being stored in two bins (see Appendix 2 attached). Chicken manure must be dried and then removed off site.</p> <p>Once construction rubble is generated during construction,</p>	None required	<p>Waste is currently removed after 2-3 months and approximately 300 kg is removed to registered waste facility. Please note that no slips exist from January 2022, but the service agreement between the service provider</p>

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
					it will be stored in skips.		and Quantum Foods is provided in Appendix 1. Dried chicken manure is collected by a neighbouring land owner to be used as fertiliser (See Appendix 3). Once construction begins, rubble will be collected weekly by the service provider listed above.



WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
General Waste (Wash water from washing the chicken houses)	Currently implemented and will be required for expansion.	Wash water run-off from washing the chicken houses. Currently includes non-hazardous chemicals, dirt and windblown soil, and some non-hazardous chicken manure. Note that each house will produce approximately 13000 litres of wash water per year.	Non-hazardous	<ul style="list-style-type: none"> <li>Limit the amount of washes per year.</li> </ul>	Waste will be collected in evaporation ponds to be treated. Waste will be collected once a year. Note that each house will produce approximately 13000 litres of wash water per year.	None required	Once the slurry has dried, it will be disposed at a registered landfill site by a registered service provider. Currently a service provider is not used for the waste removal, once the evaporation ponds are built, the service provider in Appendix 1 will be used to

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
							remove the dried slurry.
Sewage	Currently implemented and no additional infrastructure will be required for expansion.	Human sewage is currently collected in three septic tanks on the farm (See Appendix 4). These tanks are pumped once a month by a registered contractor and removed to registered facility. There will be no additional septic tanks that will be required for the expansion facilities.	Hazardous	N/A	Waste is currently collected in three septic tanks and pumped by a registered contractor at least once a month. Two tanks can hold 10000 litres of sewage and one tank can hold 5000 litres. Approximately 21 000 litres are pumped each month (Appendix 5). The septic tanks are	None required	Disposal at a registered site by a registered contractor that pumps the sewage (Appendix 5).

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
					underground and thus, photos cannot be provided.		
Chicken carcasses	Currently implemented and will be required for expansion.	Chicken carcasses from fatalities.	Hazardous waste (given that some carcasses may have infectious diseases)	N/A	Chicken carcasses are currently frozen in 7 freezers (each having 543 L capacity) throughout the farm at the houses (Appendix 6). and collected from site by a local wildlife sanctuary (Appendix 7).	MSDS must be included in the Environmental File.	Chicken carcasses are and will be collected by a local wildlife sanctuary throughout the year, as needed ( seed agreement in Appendix 7)
Egg shells	Currently	Egg shells from chicken	Non-hazardous	N/A	Egg shells are	MSDS must be	Egg shells are

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
	implemented and will be required for expansion.	eggs.			currently stored in a 6-ton bin (Appendix 8)	included in the Environmental File.	collected as needed by registered waste collector and disposed of at a registered facility (Appendix 1)
Medical Waste	Currently implemented and will be required for expansion.	Needles, syringes and any other materials used for the vaccination/quarantine of chickens.	Hazardous Waste	Use as little materials as possible.	Used items must be stored in a six clearly labelled hazardous waste bins (25 litre capacity) and sharps buckets (Appendix 9).	MSDS must be included in the Environmental File.	Dispose of at a registered hazardous treatment facility by a registered waste remover every 6 months, No disposal slips are available from January

WASTE MATRIX FOR THE OPERATIONS OF BULHOEK FARM AND CONSTRUCTION OF THE EXPANSION FACILITIES.							
Waste Name	Currently implemented and/or will be required for expansion	Description	Category	Reduction / Recycling	Segregation / Storage / Accumulation / Collection / Containerization	MSDS	Disposal
							2022, the service agreement between the registered waste remover and Quantum Foods is located in Appendix 1

#### **4. CONSTRUCTION SITE REQUIREMENTS**

Construction waste consists of mostly inert, unwanted materials directly or incidentally produced during the construction phase. Improper management of the construction wastes generated has the potential to result in contamination and pollution of soils, ground water, adjacent water bodies and adjacent properties from litter and wind or scavenger distribution of construction waste. However, these potential impacts are anticipated to be minimal provided the implementation of the following mitigation measures /actions are adhered to.

- A copy of this WMP must accompany all subcontractor agreements and require subcontractor participation.
- Each subcontractor must be made aware of the intent of this project with respect to reduction of waste and recycling.
- The subcontractor will be expected to make sure all their crews comply with the WMP, by promoting good practice awareness as part of health and safety induction / training for workers onsite. The implementation of appropriate training and induction procedures should ensure that all subcontractors adopt best practice waste minimisation procedures.
- Based on the sequence and timing of construction activities, material specific waste hauling containers will be strategically located on the site and will be clearly marked.

#### **5. GENERAL WASTE REQUIREMENTS (WASH WATER)**

The wash water from the chicken houses is considered general given the properties of the chemicals in the wash water and that only contains non-hazardous chicken manure and dirt. Given that the wash water is non-hazardous, the potential impact is expected to minimal provided the implementation of the following mitigation measures /actions are adhered to:

- Wash water must be collected and treated in evaporation ponds
- All evaporation ponds must be lined with an impermeable layer
- Once the slurry in the evaporation ponds dry, the slurry must be disposed of at a registered waste facility.
- Safe disposal slips must be kept on site.

#### **6. GENERAL WASTE REQUIREMENTS (CONSTRUCTION RUBBLE, CHICKEN MANURE AND DOMESTIC WASTE)**

This general waste refers to waste which is not classified as hazardous waste. Including concrete; timber off-cuts; insulation; paper, plastic, glass, scrap metal; general building and office refuse; waste soils from excavations and litter generated by the workforce.

- The site must be kept tidy to reduce material losses and waste. The appointed contractor will ensure that all personnel immediately deposit waste in the waste bins provided,
- Recycle suitable spoil, demolition materials, prunings, and surplus construction material arising from the works on site to avoid the need to transport materials.
- Recycling must be implemented for paper, glass, and plastic.
- All waste must be disposed of at a registered landfill.

## **7. HAZARDOUS WASTE**

Hazardous waste can be defined as waste which can, even in low concentrations, have significant adverse effects on public health and/ or the environment. „

- Waste from the septic tanks must be pumped when necessary, but at least twice a year and be disposed of at a registered facility.
- Under no circumstances may chicken carcasses be buried on site.
- All medical waste must be stored in clearly marked containers and removed from site by a registered contractor.
- Safe disposal slips must be kept for medical waste and sewage.
- Load and unload any solid hazardous materials in a manner that reduces potential spills.
- Hazardous waste disposal must be undertaken by an approved waste contractor.
- Hazardous substance containers, contaminated soil, clean-up materials, etc., must be transferred to an appropriate disposal site on a regular basis.
- Safe disposal certificates for any hazardous waste removed from the site must be kept on file.
- Complete waste transfer notes before any waste leaves the site.
- Ensure all waste service providers have a valid waste carrier's registration certificate.
- Disused fuels, solvents and other liquid wastes (e.g., used oils from construction vehicles) may be stored on site in vessels equipped with secondary containment structures to prevent contamination of soil, groundwater and surface waters due to accidental spills or releases.
- Ensure construction, demolition and refurbishment contractors have systems in place for ensuring waste materials (wood, metal, and concrete) are reused wherever possible, and/or recycled off site.
- Reduce the use of hazardous chemicals, and ensure staff use and dispose of chemicals properly.
- Any contaminated soil / substrate must be removed and stored in a skip until it can be disposed of at a permitted disposal site.
- The principal contractor must devise a procedure for dealing with clean-up of spills and appropriate disposal of the contaminated substrate.

## **8. GOOD MANAGEMENT PRACTICES**

- An adequate number of 'scavenger proof' refuse bins must be provided;
- Segregate different types of waste as they are generated using different skips where possible (General wastes, non-hazardous wastes and hazardous wastes),
- At a minimum there should be skips for wood, metals, inert and mixed materials,
- If there is a shortage of space and not enough room for multiple skips the principal contractor should employ a licensed waste management company to deal with waste,
- The Waste Management Plan shall be implemented and executed as follows:
  - Salvageable materials will be diverted from disposal to landfill where practical and possible and salvaged for reuse and or recycling where practical and possible.
  - There will be a designated area on the construction site reserved for materials that can be recycled.
  - Areas shall be marked to designate what recycle materials are to be stored there.
  - Hazardous waste will be managed by a licensed hazardous waste vendor.
- Onsite recycling containers and/or areas will be clearly marked.
- Safe disposal waybills for all waste and material loads removed from the site must be kept on file.
- Complete waste transfer notes before any waste leaves the site
- In order to adequately manage sewage wastes during the construction phase, a sufficient number of toilets must be provided for construction workers and use of the natural environment for ablutions must be prohibited,
- Ensure all waste service providers have a valid waste carriers registration certificate,
- The contractor may not dispose of any waste and / or construction debris by burning, or by burying.
- The contractor will maintain 'good housekeeping' practises as ensure that all work sites are kept tidy and litter free.
- The working areas and storage sites must be cleared of litter on daily basis.
- Waste bins must be marked for separate types of waste e.g. glass, paper, plastic, etc.
- Collect maintenance and domestic refuse (scrap metal, packaging materials etc.) in appropriate bins for recycling or send to landfill for disposal in an approved manner.

## **9. PERFORMANCE INDICATORS**

- No non-compliances associated with transport, collection, storage and disposal/re-use of solid/liquid wastes;
- Completion of waste training and induction program by contractors;
- Establishment of separate waste stream management infrastructure;



- Use of different colour bins for collecting different categories of waste to promote the segregation of waste for efficient resource recovery; and
- Acceptable housekeeping across the site.
- Stockpile areas for construction material, generation and disposal of building waste & liquids and vehicle maintenance, and Clearly labelled recycling receptacles / bins.

## **10.APPENDICES**

Appendix 1: Service agreement between contractor and Quantum Foods to remove waste

Appendix 2: General waste bins

Appendix 3: Landowner agreement for the removal of chicken manure

Appendix 4: Location of septic tanks

Appendix 5: Disposal slips for pumping of septic tanks

Appendix 6: Chicken carcass freezers

Appendix 7: Local predator sanctuary agreement for the removal of chicken carcasses

Appendix 8: Egg shell storage bins

Appendix 9: Medical waste bins

Appendix 10: Biosecurity Plan

# APPENDIX 1



# ORICOL

## ENVIRONMENTAL SERVICES

TURNING WASTE INTO A RESOURCE

Quote No: <b>16166</b>	Date: <b>26/11/2021</b>	
To: <b>Quantum Foods - Rustenburg</b>	Valid for: <b>30 Days</b>	
Att: <b>Mr Johan du Preez</b>	From: <b>Michela Gesualdi</b>	
Tel: <b>082 419 6559</b>	Tel: <b>011-922-5900</b>	
Cell: <b>082 419 6559</b>	Cell: <b>0683015468</b>	
Email: <b>Johan.duPreez@quantumfoods.co.za</b>	Email: <b>michela.gesualdi@oricoles.co.za</b>	

Dear **Mr du Preez**

Re: **Waste Management**

**Site Name:** Quantum Foods - Rustenburg  
**Site Address:** 25.7382° S, 26.8910° E Kgetlengrivier Local Municipality

Thank you for the opportunity to submit our proposal.

Oricol ES is your complete Environmental Services Provider.

When we began our business journey in 2002 our vision was to provide the South African market with a comprehensive approach to managing waste. We set out to offer a more viable and sustainable alternative to the waste to landfill based strategy that was prevalent in the market.

By focusing on reuse, recycling and recovery Oricol is able to demonstrate a lower carbon footprint to the waste generator. We, therefore, add value by:

- Reintroducing resources back into the economy
- Contributing to economic growth and job creation
- Reducing social and environmental costs

We aim to preserve valuable resources by focusing on waste reduction as well as the sorting, processing, and marketing of recyclables. As a last resort, we dispose of ultimate waste at landfill or dispose of it in the safest manner possible.

We are committed to providing innovative, sustainable solutions to managing and treating waste as a secondary resource with the aim of ensuring maximum diversion of waste from landfills.

The company was founded upon the vision of treating waste as a secondary resource and offering a full range of environmental services that addressed the need for the sustainable management of our finite resources.

Our key strategies and targets are driven towards achieving maximum diversion of waste from landfills and this drives us towards finding innovative solutions for landfill diversion and achieving the aims of the waste hierarchy.

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ORICOL ENVIRONMENTAL SERVICES (PTY) LTD  
Registration No. 2000/02 60 67/07

TURNING WASTE INTO A RESOURCE  
[www.oricoles.co.za](http://www.oricoles.co.za)









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No: 16166

We will work with you to recover waste, thus diverting it from landfills and providing you with innovative, tailor-made and sustainable solutions to manage your waste.

Oricol ES is one of the few South African companies to operate across the full spectrum of environmental services, meeting international industry standards and achieving triple, multi-site certifications - ISO 14001 (environmental), ISO 9001 (quality), and ISO 45001 (health & safety) - across our operations in Johannesburg, Durban and Port Elizabeth.

Our Comprehensive Range of Service Solutions:

- Collection and Disposal service of General and Hazardous wastes
- Total Waste Management: On-site integrated contracts – waste separation at source, sorting and recycling.
- Organic Effluent Treatment of liquid wastes incl. hydrocarbons at our own permitted liquid treatment plants
- High-hazard, Solid Waste Treatment and Disposal
- Secure Product Shredding and Data Destruction Service
- Industrial Cleaning Services, such as, sludge dewatering, vacuum work.
- Organic Waste Recycling such as Composting and Animal Feeds
- E-Waste Collection and Recycling service, including fluorescent tube recycling
- Blending Plant - conversion of suitable hazardous wastes into alternate fuels

We are confident that we can offer a comprehensive solution that is in line with your waste management policies, national waste management regulations and international best practice. We trust that we can be given the opportunity to meet and exceed your expectations of a world-class environmental service.

Thank you in advance for your kind consideration. Please don't hesitate to contact me should you require any further information.

**Michela Gesualdi**

**Key Accounts**

**0683015468**

**michela.gesualdi@oricoles.co.za**

A handwritten signature in black ink, appearing to be 'Michela Gesualdi', located at the bottom right of the page.



No: 16166

### Pricing Proposal

#### Estimate Monthly Cost

Waste Description	Monthly Estimate	Proposed Container	Estimate No of Lifts	Rental	Transport	Disposal	Total Ex VAT
2 x 11m <sup>3</sup> Skip bins for General Waste from Plant	2 Tons	2 x 11m <sup>3</sup>	2	R 1257.82 Per Month	R 0 Per Lift	R 450 Per Ton	R 2,157.82
1 x 6m <sup>3</sup> Leakproof & Lidded Skip for Hatchery Waste	6 Tons	1 x 6m <sup>3</sup> Leak Proof Skip	1	R 578.88 Per Month	R 0 Per Lift	R 1,554 Per Ton	R 9,902.88
<b>SubTotal Waste</b>							<b>R 12,060.70</b>
<b>Other Monthly Costs</b>				<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Total Ex VAT</b>
Transport - Trailer Load (3 bins per collection)				1	lift	R 20000	R 20,000.00
<b>SubTotal Other</b>							<b>R 20,000.00</b>
<b>Total Estimate Monthly Cost</b>							<b>Total</b>
							<b>R 32,060.70</b>
<b>VAT</b>							<b>R 4,809.11</b>
<b>Grand Total Regular Costs</b>							<b>R 36,869.81</b>

#### Estimate Ad Hoc

Waste Description	Estimate	Proposed Container	Estimate No of Lifts	Rental	Transport	Disposal	Total Ex VAT
Expired/Empty Vaccine Vials (Collected every 3 to 6 months)	25 kgs	6 x 25L Chemical Cont	1	R 120 Each	R 3500 Per Lift	R 500 Each	R 7,220.00
<b>SubTotal Waste</b>							<b>R 7,220.00</b>
<b>Other</b>				<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Total Ex VAT</b>
Placement: 3 x Skip Bins				1	lift	R 10000	R 10,000.00
Placement: 25L Screw Top Drums				1	lift	R 3500	R 3,500.00
Purchase 6 x 25L Screw Top Drums				6	ea	R 120	R 720.00
<b>SubTotal Other</b>							<b>R 14,220.00</b>
<b>Total Estimate Ad Hoc</b>							<b>Total</b>
							<b>R 21,440.00</b>
<b>VAT</b>							<b>R 3,216.00</b>
<b>Grand Total Ad Hoc Costs</b>							<b>R 24,656.00</b>



No: 16166

**Summary**

**Estimate Monthly Cost**

Transport - Trailer Load (3 bins per collection)	R 20,000.00
1 x 6m <sup>3</sup> Leakproof & Lidded Skip for Hatchery Waste	R 9,902.88
2 x 11m <sup>3</sup> Skip bins for General Waste from Plant	R 2,157.82
<b>Total Estimate Monthly Cost</b>	<b>R 32,060.70</b>

**Estimate Ad Hoc**

Placement: 25L Screw Top Drums	R 3,500.00
Placement: 3 x Skip Bins	R 10,000.00
Purchase 6 x 25L Screw Top Drums	R 720.00
Expired/Empty Vaccine Vials (Collected every 3 to 6 months)	R 7,220.00
<b>Total Estimate Ad Hoc</b>	<b>R 21,440.00</b>

**Standard Acceptance**

Pricing is subject to the following terms and conditions:

1. All rates exclude VAT
2. Strictly 30 days payment from date of statement
3. Subject to standard Terms and Condition (Appendix A) *MS/SL*
4. Cost vs. refunds to be offset prior to commercial invoice
5. Major changes to fixed cost to be agreed with client in advance (other costs)
6. All information contained is based on information provided at time of submission

Price is subject to final sample analysis of waste streams

Signed for and behalf of Oricol Environmental Services

Signature .....

Name .....

Date .....

Signed for and behalf of Client by personal duly authorised to accept this offer. I have read and accept the standard terms & conditions, as amended in Appendix A. *MS/SL*

Signature *[Signature]* .....

Name *Lacton Mailula* .....

Date *02/12/2021* .....

*[Signature]*



No: 16166

We are confident that we can offer a comprehensive solution that is in line with your waste management policies, national waste management regulations and international best practice. We trust that we can be given the opportunity to meet and exceed your expectations of a world-class environmental service.

Thank you in advance for your kind consideration. Please don't hesitate to contact me should you require any further information.

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# APPENDIX 2





Figure 1 General waste bins at Bulhoek Farm

# APPENDIX 3

## XANADU PROPERTIES 2 CC

REG.NO 2002/020482/23

Vat: 4650197918

Physical Address:  
PLAAS BULHOEK  
SWARTRUGGENS  
2835

Postal Address:  
P.O. Box 195  
SWARTRUGGENS  
2835

Contact Details: 0837083487

---

Quantum Foods Pty Ltd trading as  
Tydstroom Poultry  
P.O. Box 1183  
Wellington

07 December 2021

This letter is to notify that Xanadu properties remove manure at site after every cycle. We use the manure as fertilizer for our crops.

Our vehicle are washed with antibacterial chemicals to prevent spread of diseases.

Thank you  
Christiaan Brits





# APPENDIX 4





Figure 2 Localities of septic tanks on Bulhoek Farm

# APPENDIX 5

					STATEMENT																																																																		
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Tel: 014 592 3988/21 Fax: 086 614 3726 VAT no: 4610189585 CK2000/025550/23					Page 1																																																																		
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Account: Q006 Your Reference: 4500393787 Tax Exempt: N Tax Reference: 4030263455 Sales Code: Exclusive		Deliver to:															
Code	Description	Quantity	Unit	Unit Price	Disc%	Tax	Nett Price										
1000200	Pumping and removal of raw sewer from septic tank on 10 December 2021. 3 Load @ R1540.00/load + 15% VAT  Bank details: ABSA - Cheque Account Account no: 404 876 9901 Branch Code: 632005						4 620.00										
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# APPENDIX 6



*Figure 3 One of the chicken carcass freezers*



*Figure 4 Example of a frozen chicken carcass in one of the freezers*

# APPENDIX 7



# MALICHRI WILDLIFE CENTRE

Reg Nr: 2016/195161/07

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09 November 2020

Quantum Foods Pty Ltd trading as  
Tydstroom Poultry  
Po Box 1183  
Wellinton

This letter is to notify that all the meat to be collected at your premises is strictly for animal (non Human consumption) use. We are a predator Sanctuary(non Profit organization) and need meat to feed our predators to keep cost low.  
We also can facilitate 2 freezers at your premises to be used to store mortalities to be freezed and collected once they are full and that we should be notified immediatly via phone call for us to come pick up either fresh or frozen to prevent rottage.

Our vehicles are washed with antibacterial chemicals to prevent spread of diseases

Thanks once again for this

We and the Animals are really thankful

AG van Staden  
Director  
0608348520

Malichri Wildlife Centre  
PO Box 1000

Telephone:  
+27 60 834 8520

Email : Malichrilodge@gmail.com

# APPENDIX 8



**Figure 5 Egg shell storage bin at Bulhoek Farm**



# APPENDIX 9



Figure 6: Two 5 litre hazardous waste bins

# APPENDIX 10