



**Earlybird Farm – A Division
of Astral Operations Limited
Full Scoping and EIA**

Locality: Standerton

Departmental Ref No: 17/2/3 GS-198

SHANGONI
Management Services (Pty) Ltd



DRAFT SCOPING REPORT

Earlybird Farm – A Division of Astral Operations Limited

Full Scoping and EIA

Locality: Standerton

Departmental Ref No: 17/2/3 GS-198

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PROJECT DETAILS

Mpumalanga Department of Economic Development, Environment and Tourism

Reference No.: 17/2/3 GS-198 (Formerly 17/2/3 GS-145)

Project Title: Atmospheric emission license application for Earlybird Farm Standerton abattoir and its on-site rendering facility.

Project Number: EAR-STA-12-05-15

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Date: 13 November 2013

Location: Pretoria

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REFERENCES

AGIS, 2007. Agricultural Geo-Referenced Information System, accessed from www.agis.agric.za on 19 June 2013.

Airshed Planning Professionals (Pty) Ltd., 2013. Air Quality Impact Assessment: Earlybird Farm Standerton Abattoir.

COWI Consulting Engineers and Planners AS, Denmark, 2000. Cleaner Production Assessment in Meat Processing for United Nations Environment Programme, Division of Technology, Industry and Economics and Danish Environmental Protection Agency.

Kwezi V3 Engineers (KV3), 2009. Water Services Development Plan (WSDP) 2009-2013 Lekwa Local Municipality (Ref. LEK-WSPD-MP305).

Mucina, L. and Rutherford, M.C. (eds), 2006. The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.

PDNA, WRP Consulting Engineers (Pty) Ltd, WMB and Kwezi-V3, 2004. Department of Water Affairs and Forestry Upper Vaal Water Management Area: Internal Strategic Perspective.

Statistics South Africa, 2011. Census 2011 Municipal Fact Sheet.

http://www.lennotech.com/ozone_odour.htm

http://www.envronozone.com/odor_control/ozone_odor_control_systems.htm



DEFINITIONS

Air Pollution

According to NEM: AQA means any change in the composition of the air caused by smoke, soot, dust (including fly ash), including cinders, solid particles of any kind, gases, fumes, aerosols and odour substances. *[NEM: AQA, (Act 39 of 2004)]*

Air Quality Management Plan

Means a plan referred to in Section 15 of NEM: AQA *[NEM: AQA, (Act 39 of 2004)]*

Air Shed Priority Area

Means an area as set out in term of Section 18 of the National Environmental Management: Air Quality Act of 2004, Act No 36 of 2004. *[NEM: AQA, (Act 39 of 2004)]*

Ambient Air

Excludes air regulated by the Occupational Health and Safety Act, 1993 (Act No 85 of 1993). *[NEM: AQA, (Act 39 of 2004)]*

Atmospheric Emission

Means any emission or entertainment process emanating from a point, non-point or mobile source that results in air pollution. *[NEM: AQA, (Act 39 of 2004)]*

Atomise

To break into small fragments.

Building and demolition waste

Means waste, excluding hazardous waste, produced during the construction, alteration, repair or demolition of any structure, and includes rubble, earth, rock and wood displaced during that construction, alteration, repair or demolition *[NEM: WA, (Act No. 59, 2008)]*.

Demography

The scientific study of human population, especially, with reference to their size, structure and distribution.



Domestic waste

Means waste, excluding hazardous waste, that emanates from premises that are used wholly or mainly for residential, educational, health care, sport or recreation purposes [*NEM: WA, (Act No. 59, 2008)*].

Environment

The surroundings (biophysical, social and economic) within which humans exist and that are made up of

- the land, water and atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of (i) and (ii) and the interrelationships among and between them; and
- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Aspects

Environmental aspects are elements of an organisation's activities, products or services that can interact with the environment.

Environmental Degradation

Refers to pollution, disturbance, resource depletion, loss of biodiversity, and other kinds of environmental damage; usually refers to damage occurring accidentally or intentionally as a result of human activities.

Environmental Impacts

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services.

Environmental Impact Assessment

An Environmental Impact Assessment is the study of the environmental consequences of a proposed course of action.

Environmental Impact Report

A report assessing the potential significant impacts as identified during the environmental impact assessment.



Environmental impact

An environmental change caused by some human act.

General waste

Means waste that does not pose immediate hazard or threat to health or to the environment, and includes-

- (a) domestic waste;
- (b) building and demolition waste;
- (c) business waste; and
- (d) inert waste [NEM: WA, (Act No. 59, 2008)].

Hazardous waste

Means any waste that contains organic or inorganic elements compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment [NEM: WA, (Act No. 59, 2008)].

Human Development Index

The **Human Development Index (HDI)** is a composite statistic used to rank countries by level of "human development" and separate developed (high development), developing (middle development), and underdeveloped (low development) countries. The statistic is composed from data on life expectancy, education and per-capita GNI (as an indicator of standard of living) collected at the national level using the formula given in the Methodology section below. There are also HDI for states, cities, villages, etc. by local organisations or companies. (<http://encyclopedia.thefreedictionary.com>)

Land use

Land use is defined as the various ways in which land may be employed or occupied. Planners compile, classify, study and analyse land use data for many purposes, including the identification of trends, the forecasting of space and infrastructure requirements, the provision of adequate land area for necessary types of land use, and the development or revision of comprehensive plans and land use regulations.

Pollution

Pollution means any change in the environment caused by -

- (i) substances;
- (ii) radioactive or other waves; or
- (iii) noise, odours, dust or heat,



emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or wellbeing or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future [NEM: WA, (Act No. 59, 2008)].

Pollution Prevention

Pollution prevention can be any activity that reduces or eliminates pollutants prior to recycling, treatment, control or disposal. [NEM: AQA, (Act 39 of 2004)]

Public Participation Process

A process of involving the public in order to identify needs, address concerns, in order to contribute to more informed decision making relating to a project, programme or development.

Topography

Topography, a term in geography, refers to the "lay of the land" or the physio-geographic characteristics of land in terms of elevation, slope and orientation.

Vegetation

Vegetation is defined as all of the plants growing in and characterising a specific area or region; the combination of different plant communities found there.

Waste

Means any substance, whether or not that substance can be reduced, re-used, recycled and recovered-

- (a) that is surplus, wanted, rejected, discarded, abandoned or disposed of;
- (b) which the generator has no further use of for the purposes of production;
- (c) that must be treated or disposed of; or
- (d) that is identified as a waste by the Minister by notice in the *Gazette*, and includes waste generated by the mining, medical or other sector, but-
 - (i) a by-product is not considered waste; and
 - (ii) any portion of waste, once re-used, recycled and recovered, ceases to be waste [NEM: WA, (Act No. 59, 2008)].

Waste treatment facility

Means any site that is used to accumulate waste for the purpose of storage, recovery, treatment, reprocessing, recycling or sorting of that waste [NEM: WA, (Act No. 59, 2008)].



ABBREVIATIONS

AEL	-	Atmospheric Emission License
AIR	-	Atmospheric Impact Report
APPA	-	Atmospheric Pollution Prevention Act, 1965 (Act No.45 of 1965)
AQMP	-	Air Quality Management Plan
AQO	-	Air Quality Officer
BID	-	Background Information Document
CRR	-	Comments Response Report
GLCs	-	Ground Level Concentrations
DEA	-	Department of Environmental Affairs
EAP	-	Environmental Assessment Practitioner
ECA	-	Environmental Conservation Act, 1989 (Act No. 73 of 1989)
EIA	-	Environmental Impact Assessment
EIR	-	Environmental Impact Report
EMF	-	Environmental Management Framework
EMP	-	Environmental Management Programme
GDARD	-	Gauteng Department of Agriculture and Rural Development
GN	-	Government Notice
HDI	-	Human Development Index
I&AP	-	Interested and Affected Party
IDP	-	Integrated Development Plan
NEMA	-	Environmental Management Act, 1998 (Act No. 107 of 1998) as amended
NEMWA	-	National Environmental Management: Air Quality Act, 2004 (Act No. 39, 2004)
NAAQS	-	National Ambient Air Quality Standards
R	-	Regulation
S&EIR	-	Scoping and Environmental Impact Reporting
SAHRA	-	South African Heritage Resources Agency
VOCs	-	Volatile Organic Compounds

EXECUTIVE SUMMARY

Earlybird Farm Standerton abattoir and its on-site rendering facility are located on Portion 0 of Erf 279 Stanfield Hill. The site is approximately 13km north-west of the centre of Standerton. The Earlybird Farm Standerton abattoir is supplied with live chickens by Earlybird Farm broiler farms or contract growers under the control of Earlybird Farm. All blood, feathers and other condemned material from the abattoir, including mortalities from the Earlybird Farm broiler farms are processed at an onsite rendering facility.

The on-site rendering of animal matter (blood, feathers and other condemned material from the abattoir, including mortalities from the Earlybird Farm broiler farms) triggers the activity listed in Category 10, Animal matter processing in terms of Government Notice No. 248 as contemplated in Section 21(1) (a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (MEN: AQA). Refer to Table 1 for the description, application and minimum emission standards for this listed activity.

In terms of Section 22 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004); no person may conduct a listed activity without a Provisional Atmospheric Emission License or an Atmospheric Emission License. A person must apply for an AEL with the licensing authority of the area in which the activity is to be carried out.

Section 24 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and Section 22 of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) both apply to all AEL applications. The rendering of animal matter therefore also requires environmental authorisation in terms of activity 26 listed in Government Notice R545 Listing Notice 2 (EIA regulations of 10 December 2010) of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

Activity 26 - “Commencing of an activity, which requires an atmospheric emission license in terms of section 21 of the National Environmental Management Act, Act No 36 of 2004, except where such commencement requires basic assessment in terms of Notice of No. R544 of 2010”

A full Environmental Impact Assessment (EIA) and Scoping process is required to obtain authorisation for all activities listed in Government Notice R545 Listing Notice 2 (EIA regulations of 10 December 2010) of NEMA.

The Environmental Impact Assessment process will aim to achieve the following:

- To provide a detailed assessment of the environment affected by the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation;



- To assess impacts on the study area in terms of environmental criteria;
- To identify and recommend appropriate mitigation measures for potentially significant environmental impacts; and
- To undertake a fully inclusive public participation process to ensure that I&APs issues and concerns are recorded and addressed.

The purpose of this document is to supply the Mpumalanga Department of Economic Development, Environment and Tourism with the requested information pertaining to the NEMA, as stipulated by Regulation 28 of the Environmental Impact Assessment (EIA) Regulations, 2010.

Contained in this document is a brief overview of the activity and site specific information for the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation (location, topography, surrounds, vegetation, etc.). The latter part of the document contains an environmental management framework that includes a reflection of applicable legislation, the public participation process followed, the need and desirability of the project, identified alternatives, a quantitative risk assessment, and an environmental management plan.

Document layout:

Section one – Introduction

The purpose of this section is to provide a brief overview of the activities and locality, applicable infrastructure and environmental licensing required.

Section two – Nature and extent of the environment affected by the activity

The status of the environment in which Earlybird Farm Standerton is situated is discussed in Section 2. The environmental areas, geology, climate, topography, soil, land use and land capability, fauna and flora, surface water, groundwater, archaeological and cultural sites, air quality and socio-economic aspects are described in this section.

Section three – Legislation and guidelines applicable

Section three lists all environmental legislation and guidelines applicable to the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation.

Section four – Public participation process

This section provides information pertaining to the consultation process that will be followed during this EIA process.



Section five – Need and desirability

Section five describes the need and desirability of this project from the perspective of the applicant and local community.

Section six – Identified alternatives

Section six considers the no-go alternative as well as alternative best practise measures.

Section seven – Identification of anticipated environmental impacts

This part of the document focuses on the identification of the major potential impacts the activity may have on the surrounding environment.

Section eight– Plan of study

In this part of the document a description is given of the steps to be taken as part of the Environmental Impact Assessment process.

Section nine – Conclusion

Section nine gives a brief conclusion based on all information obtained and potential environmental impacts identified during the scoping process.



1. INTRODUCTION

1.1 Applicant

Name of Applicant	Earlybird Farm, A Division of Astral Operations Limited Mr. Antonie Roets
Postal Address	PO Box 661, Standerton, 2430
Telephone No.	017 720 0114
Fax No.	086 528 5777
Farm name and portion on which the activities take place	Portion 0 of Erf 279 Stanfield Hill
Co-ordinates of operation	26°55'37.03"S; 29°13'12.48"E

1.2 Appointed Environmental Assessment Practitioner

Name of firm	Shangoni Management Services (Pty) Ltd.	
Postal address	PO Box 74726, Lynwood Ridge, Pretoria, 0040	
Telephone No.	(012) 807 7036	
Fax	(012) 807 1014/086 643 5360	
E-mail	lizette@shangoni.co.za	
Team of Environmental Assessment Practitioners on project		
Name	Qualifications	Responsibility
Mr. H.L. de Villiers	BSc. (Hons) (PU for CHE) MSc.(UP)	EIA Project Leader and Co-ordinator
Ms. Lizette Crous	Post Graduate Certificate Environmental Management (University of London)	EAP
Ms. Patricia van der Walt	B.Sc. (Hons) (Applied Science in Environmental Technology)	Jnr. EAP

Detailed CV's for the project team are appended (Appendix F).



1.3 Operation at Earlybird Farm Standerton

The Earlybird Farm Standerton abattoir is supplied with live chickens by Earlybird Farm broiler farms or contract growers under the control of Earlybird Farm. All chickens originate from a closed bio-security compartment under the control of Astral. At present 1 540 000 chickens are processed at the Earlybird Farm Standerton abattoir per week and the abattoir has received environmental authorisation to expand to 2 000 000 chickens per week.

The slaughtering process occurs as follows:

1. Chickens from contract growers or Earlybird Farm broiler farms are loaded into crates at the farms and transported to the abattoir for slaughtering.
2. At the abattoir, chickens are loaded off the truck, are removed from the crates and are attached by their feet to the shackles on a continuously moving line that transports the chickens into the abattoir. Dead-on-arrival chickens (DOAs) are left in the crates and taken to DOA bins. From there the DOAs are taken to the rendering intake area.
3. Modules and crates are washed and sanitised before they are re-loaded onto trucks.
4. The chickens are stunned once they enter the slaughtering area. This occurs as the chickens move through an electrically charged water bath with variable voltage.
5. The chickens are then counted by an electronic counter before their throats are slit. Cutting the jugular vein bleeds the chickens.
6. The conveyor belt takes the chickens through a blood collection tunnel. Each chicken spends at least 90 seconds in the bleeding tunnel and it is estimated that approximately 50% of the blood is removed at this stage. The blood is then captured in a trough and transferred to the rendering plant.
7. To loosen the feathers, each bird is scalded. This is done by passing the chickens through a scald tank in which there is continuously changing agitating water at a constant temperature of between 50 - 60°C. Air is injected into the water through a nozzle. The air creates a powerful and consistent turbulence in the tank that ensures a better scalding effect. To ensure that the skin remains intact and unblemished, each chicken spends less than 2 minutes in the scalding tank.
8. Plucking or defeathering occurs through mechanical abrasion, by rubber fingers or disks that are mounted onto revolving drums. The chickens are scraped while being sprayed with warm water (15-25 °C) for approximately 1 minute. The feathers fall into underlying troughs and any remaining feathers will be removed by hand. The feathers are sent to the rendering plant.
9. At this stage the first post-mortem inspection is done and any rejected chickens are removed from the line and sent to the rendering plant.
10. Heads are mechanically pulled off the carcasses.
11. Carcasses are then washed with chlorinated water.
12. Leftover pin feathers are removed by hand and sent to the rendering plant.



13. The hocks are cut off before the carcasses are dropped to the Evisceration line. This is the end of the so-called “dirty” section of the slaughterhouse. The next step is the start of the “clean” section.
14. Carcasses are transported to the evisceration section and hung on the EV line.
15. Carcasses are automatically drilled, cut open and the viscera are automatically removed.
16. Carcasses are inspected by qualified staff and condemned carcasses are removed from the line.
17. The viscera are sorted to obtain the liver, heart and gizzard. Giblet harvesting occurs by hand.
18. Carcasses are then rinsed with chlorine water to remove blood and extraneous matter.
19. Carcasses are inspected for poor evisceration before crops and windpipes are removed from the carcasses.
20. Necks are removed from the carcasses.
21. At this stage carcasses are washed with chlorine water. Chlorine is used to kill most of the bacteria in the tanks.
22. The washed carcasses are offloaded into a spin chiller, then re-hung on a transfer line and taken to an air chiller. Here the carcasses are chilled to ≤ 10 °C and chlorine sprayed.
23. Carcasses are hung on to different process lines so as to remove surplus water that was not absorbed or sealed into the skin and muscles during washing and chilling.
24. The carcasses are graded, weighed and packaged.
25. The whole chickens and portions are chilled and frozen.

1.3.1 Listed activity – Rendering of animal matter

At the abattoir’s on-site rendering plant, two rendering processes occur. The first only uses feathers and blood as the input to the rendering process, whilst the second uses all other raw materials from the abattoir slaughtering process, including mortalities from the Earlybird Farm broiler farms. Raw materials from the abattoir slaughtering process includes Dead-On-Arrival (DOA) chickens received at the Live Bird Department, condemned carcasses after de-feathering, condemned material from inspection points at evisceration and other places where condemned material can be generated, floor waste and blood. Refer to Table 1 for the description, application and minimum emission standards for this listed activity.

Table 1: Description, application and minimum emission standards for this listed activity.

Category of Listed Activity	Description of the Listed Activity	Application of the Listed Activity
Category 10: Animal matter processing.	Processes for the rendering cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption.	All installations handling more than 1 ton of raw materials per day.

The following special arrangement applies for this activity:

“Best practice measures intended to minimise or avoid offensive odours must be implemented by all installations. These measures must be documented to the satisfaction of the Licensing Authority”.

1.3.2 Other emission sources (not listed)

Three coal fired boilers, at Earlybird Farm abattoir are used to warm water used in the slaughtering process mentioned above. Steam is also used for the rendering process. The boilers have a combined heat input value of approximately 3.5 MW and therefore do not fall under listed activity Category 1: Combustion Installations, subcategory 1.1: Solid Fuel Combustion Installations, in terms of Government Notice No. 248 as contemplated in Section 21(1) (a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (MEN: AQA), which is only applicable to installations with a design capacity equal to or higher than 50 MW heat input per unit.

1.3.3 Wastewater treatment

Presently, wastewater or effluent from the abattoir and rendering facility is pumped to an existing Sequence Batch Reactor (SBR) plant for treatment. From the SBR plant the wastewater is channelled to two earth dam. The current treatment of wastewater needs to be done more effectively to comply with the Department of Water Affairs’ general limit standards for the discharge of wastewater into a water resource. A proposed wastewater treatment plant (License Number: 12/9/11/L739/6) has been authorised and will be able to effectively treat 6 000m³ of processing wastewater per day.

1.4 Locality

The Earlybird Farm Standerton operation (abattoir and rendering facility) is located on Portion 0 of Erf 279 Stanfield Hill, Mpumalanga. The site is approximately 13km north-west of the centre of Standerton and falls within the Lekwa Local Municipality of the Gert Sibande District Municipality. Site photographs are given in Figures 1 to 2 and the locality map is given by Figure 3.

Table 2: Direction and distance to the nearest town.

Direction	Distance from site	Closest town
North-west	3 km	Standerton (CBD)





Figure 1: The Earlybird Farm Standerton abattoir (Google Earth)



Figure 2: The Earlybird Farm Standerton abattoir (2) (Google Earth)



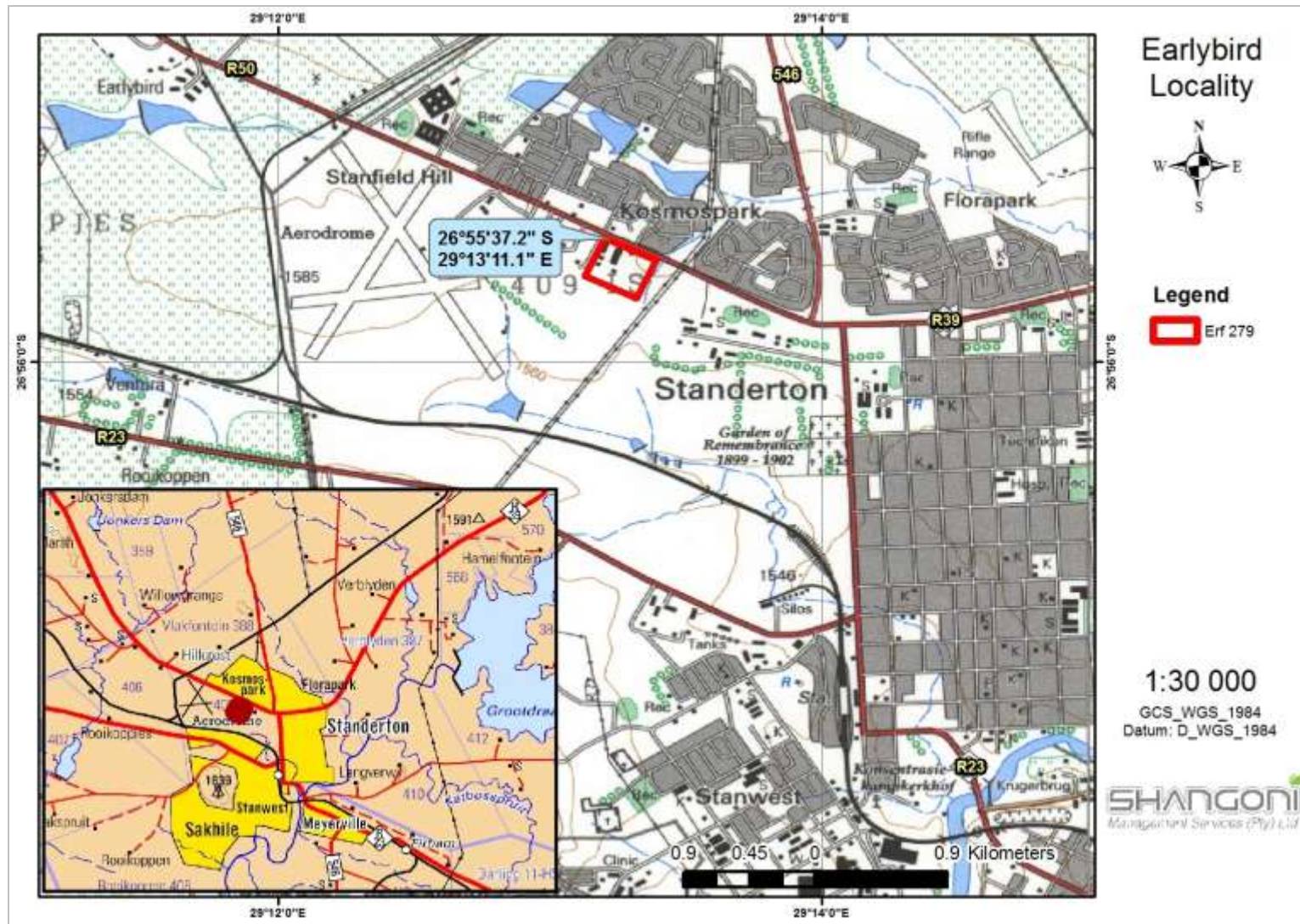


Figure 3: Locality Map

2. NATURE AND EXTENT OF THE ENVIRONMENT AFFECTED BY ACTIVITY

The following section provides a description of the baseline or status quo environment as well as the social-economic parameters that characterise the region and the study area, and is derived from various specialist studies as well as data sources including aerial photographs, topo-cadastral maps and national and provincial databases.

2.1 Regional climate

The climate of the site is typical of Highveld conditions, with relatively warm to hot summers and fairly high rainfall, and moderate to cool winters with little or no rain. Valleys and wetlands are much cooler at night and more prone to frost than higher lying areas. The area experiences thunderstorms during the summer months, which usually occur in the late afternoons.

The Grootdraai Dam Eskom monitoring station is located approximately 7.4km to the north-east of the abattoir and has been used to obtain weather data for the area.

2.1.1 Rainfall

The site occurs in a summer rainfall area with a mean average annual rainfall of between 621.42 – 752.36mm. More than 80% of the yearly rainfall occurs between October and March. According to the Grootdraai Dam Eskom monitoring station, the average monthly rainfall for the period between August 2011 and July 2012 was 42mm. Figure 4 below shows the monthly rainfall for the Eskom Grootdraai Dam monitoring station.

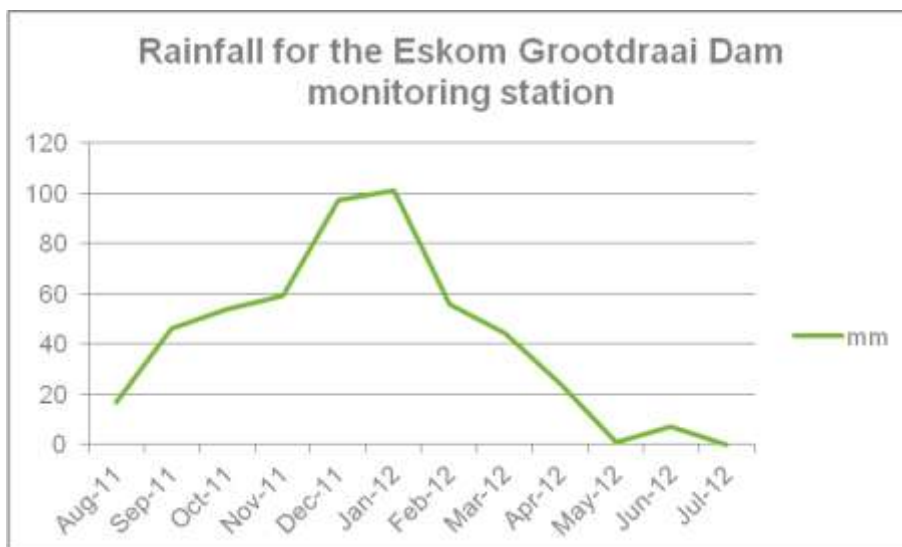


Figure 4: Average monthly rainfall in Standerton (Airshed, 2013).



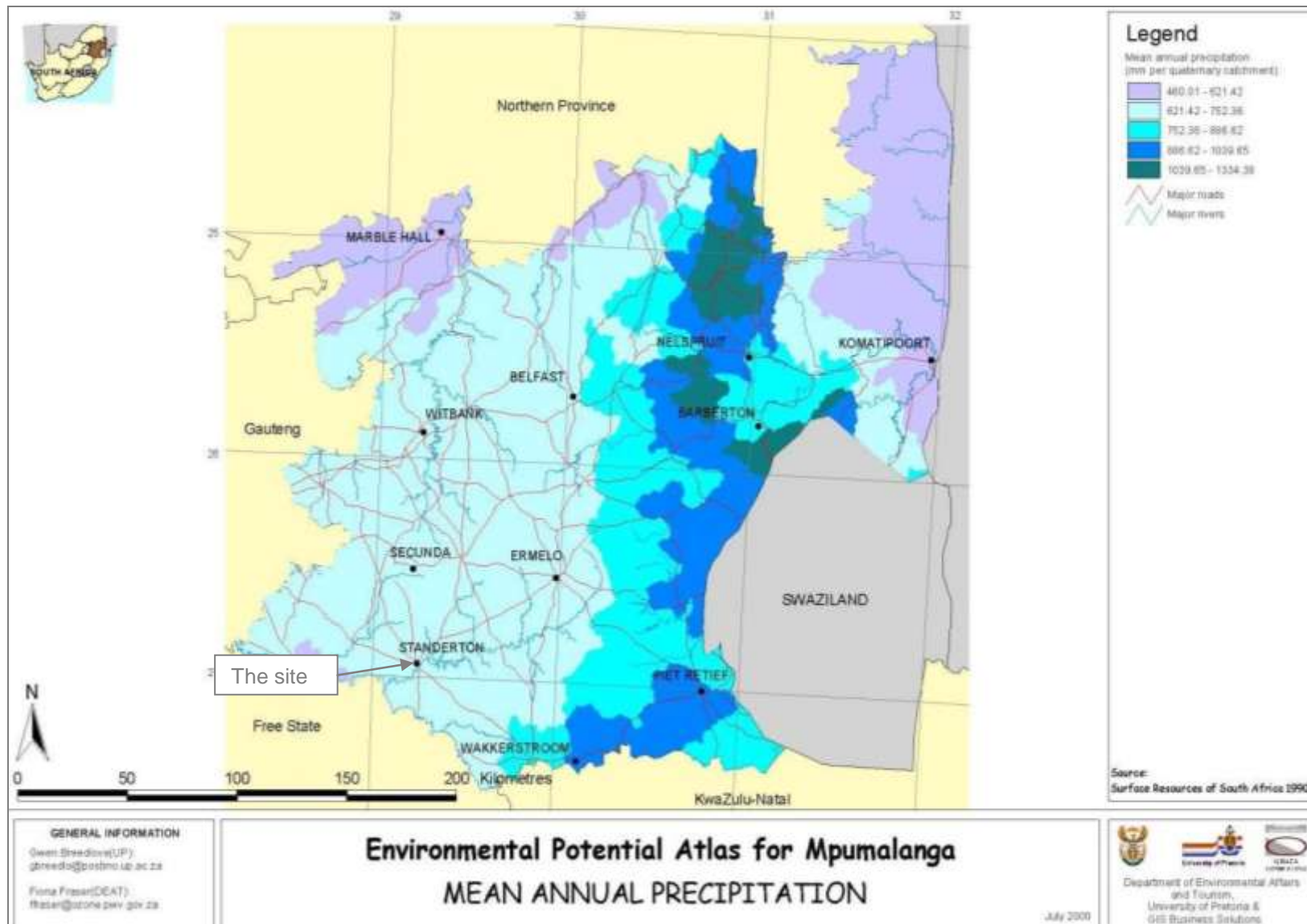


Figure 5: Mean annual precipitation in Mpumalanga

2.2.2 Temperature

The diurnal temperature range at the Grootdraai Dam Eskom monitoring station is given in Figure 6 below. The maximum average annual temperature is 31.5°C, the minimum average annual temperature is 0.9°C and the mean average annual temperature is 15.3°C.

Temperature affects the buoyancy of emission plumes. The greater the difference in temperature between the ambient air and the emission plume, the higher the emission plume can rise into the air.

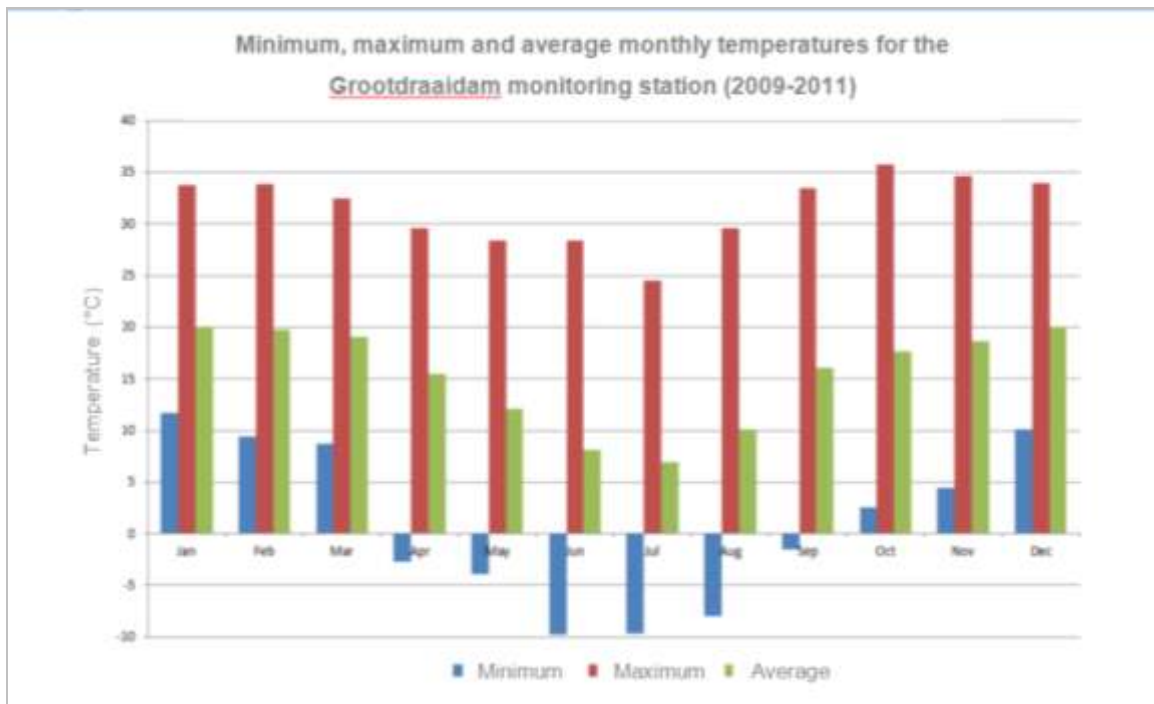


Figure 6: Diurnal temperature range for Standerton (Airshed, 2013)

2.2.3 Wind

The predominant wind direction at the Grootdraai Dam Eskom monitoring station is east- south-easterly with an occurrence frequency of approximately 16%. South-westerly winds are infrequent with an occurrence frequency of less than 4%. Calm conditions, where wind speeds are less than 1m/s, have an occurrence frequency of 9.9%.

During the day, winds from the north-western sector increase. During night-time hours, these winds decrease and winds from the east-southeast sector increase (Airshed Planning Professionals, 2013). Refer to Figure 7 and 8 for period, day-time and night-time and seasonal wind roses.



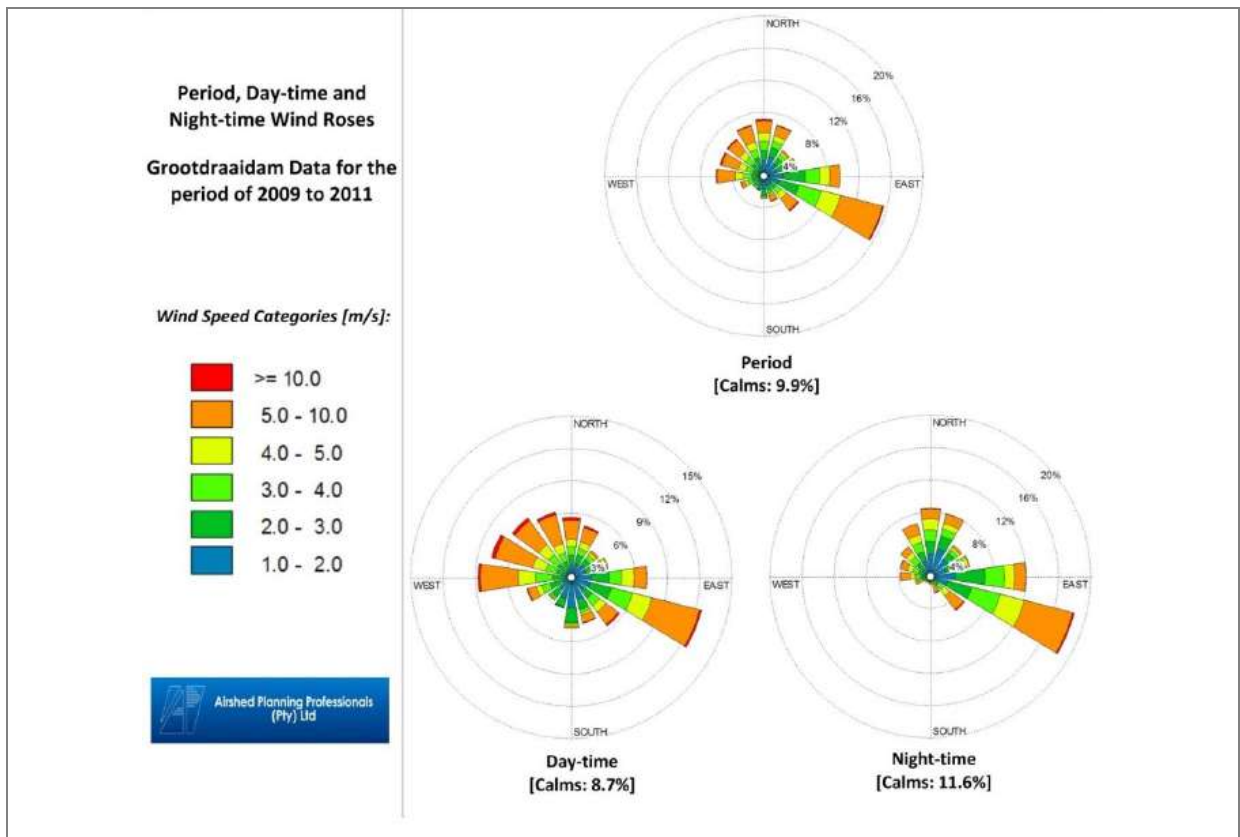


Figure 7: Period, day-time and night-time wind roses for Grootdraaidam (2009-2012)

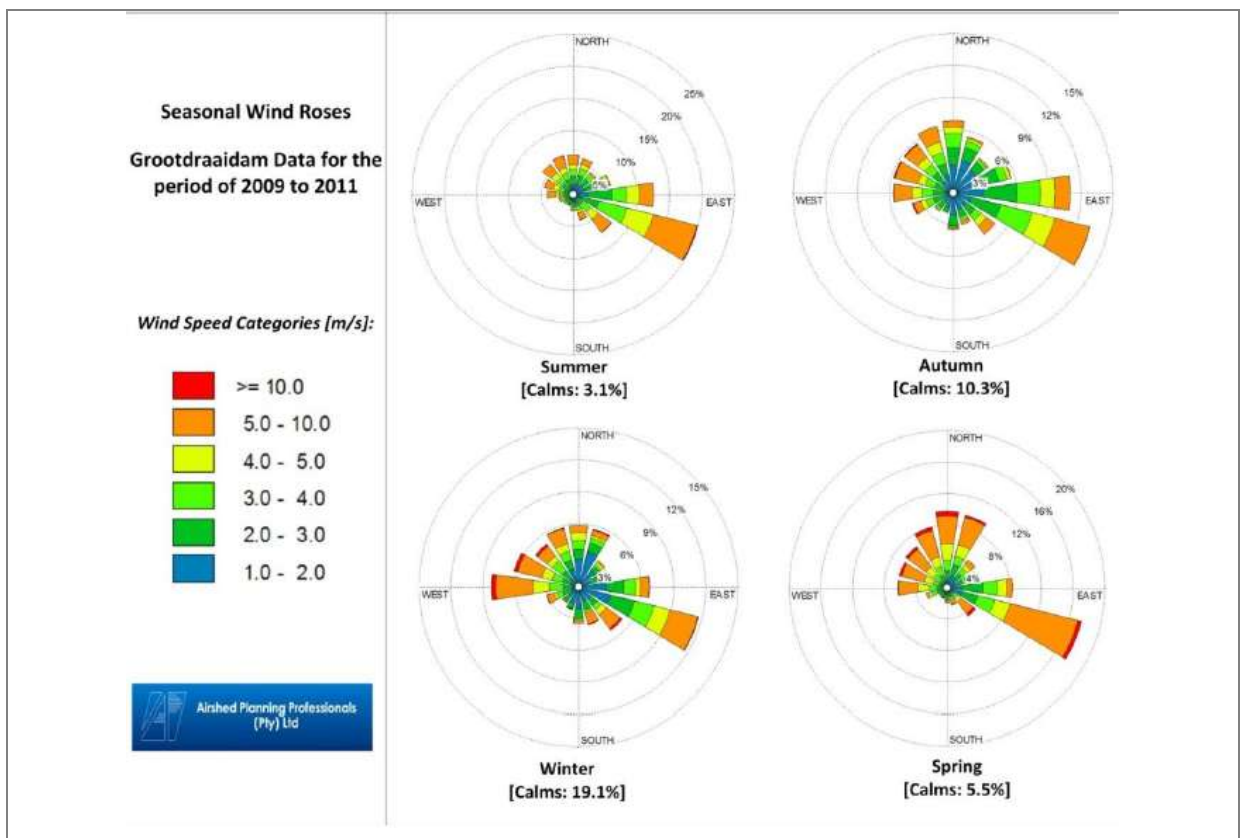


Figure 8: Seasonal wind roses for Grootdraaidam (2009-2012)



2.2 Geology

In general, the area is underlain by sandstone, shale or mudstone of the Madzaringwe Formation, of the Karoo Supergroup, or the intrusive Karoo Suite dolerites that are very common in the area. In the south, rocks of the Volksrust Formation (Ecca Group, Karoo Supergroup) are found while rocks of the older Transvaal-, Witwatersrand- and Ventersdorp- Supergroups are found to the West (Mucina & Rutherford, 2006).

The site itself is underlain by rocks of the Madzaringwe Formation as can be seen on Figure 9. This formation is made of siliciclastic rocks from the Permian period (251 – 299 million years old) (Permian Period, 2011).

2.3 Topography

The site is situated on a relatively flat area, sloping to the south at gradient of less than 4°. The site is located at approximately 1 757 metres above mean sea level and there are no drainage features within the site boundaries. A drainage line does, however, run past the east boundary of the site. The topography of the site is shown in Figure 10.

2.4 Soils

The general area has mostly deep soils of a reddish colour and typically Ea, Ba and Bb land types (Mucina & Rutherford, 2006). According to the AGIS Land Type Survey, the site is classified as land type Ea17 (AGIS, 2007). The soil depth lies in the range of between 450 mm and 750 mm deep (Figure 11) and the clay component of the topsoil represents more than 35% of the total volume of soil (Figure 12). According to Figure 13 the soil present on the site is classified as code S5. These soils are swelling clay soils with naturally high fertility, but are very plastic, sticky and have a high well-shrink potential.

2.5 Land capability

The Earlybird Farm abattoir is currently in a process of applying for a land use change consent to change the zoning of the property from an Industrial 1 to Industrial 2 zoning. A functioning chicken abattoir and its on-site rendering facility are present on the site and has been in use for a number of years. The site is therefore no longer in its natural state. The land uses in the vicinity of the site consist of vacant land, land of which the land use has not been specified and built-up land (Figure 14).

According to the AGIS Comprehensive Atlas, land capability of the site is classified as arable land of moderate potential (AGIS, 2007).



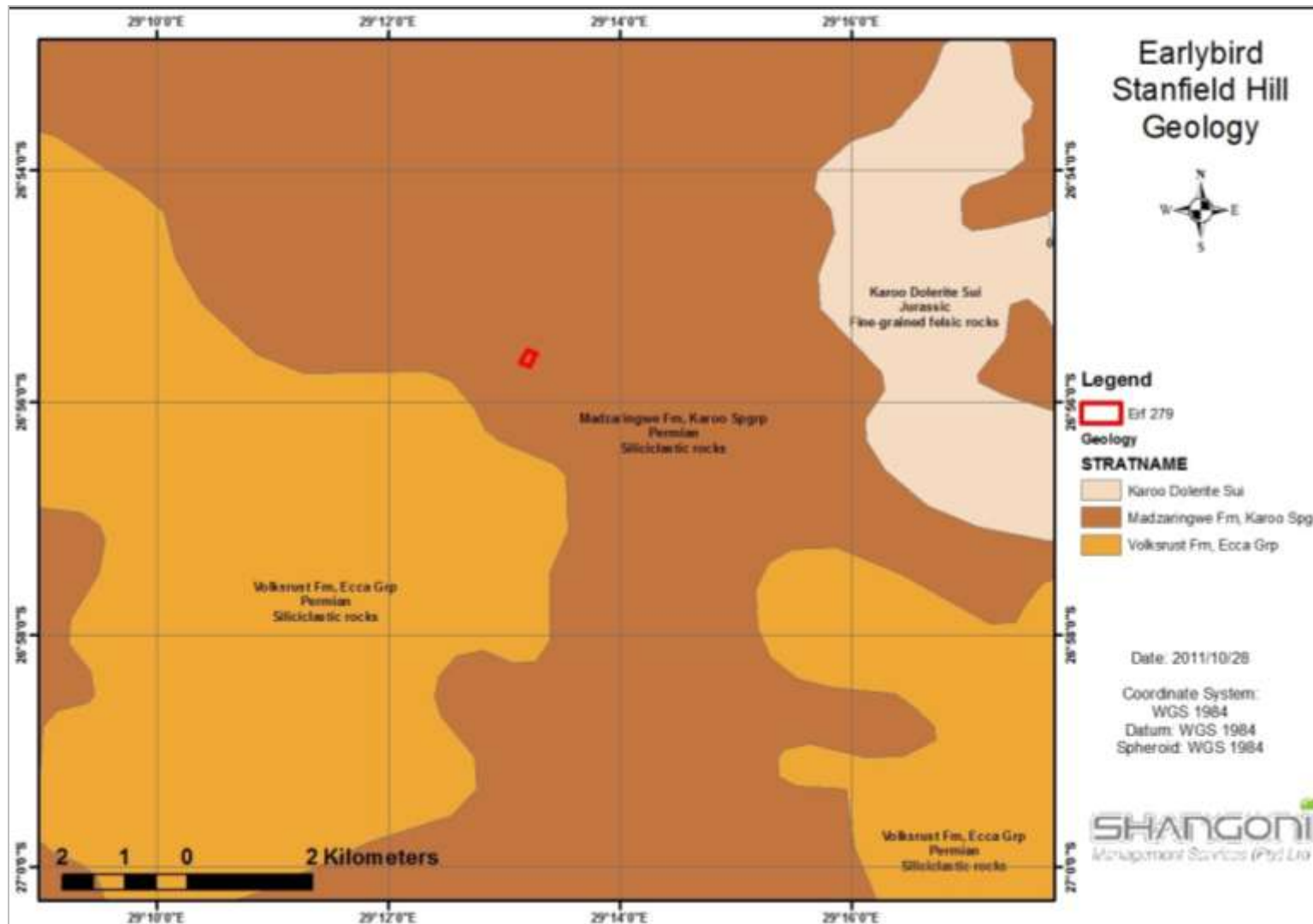


Figure 9: Geology of the site.

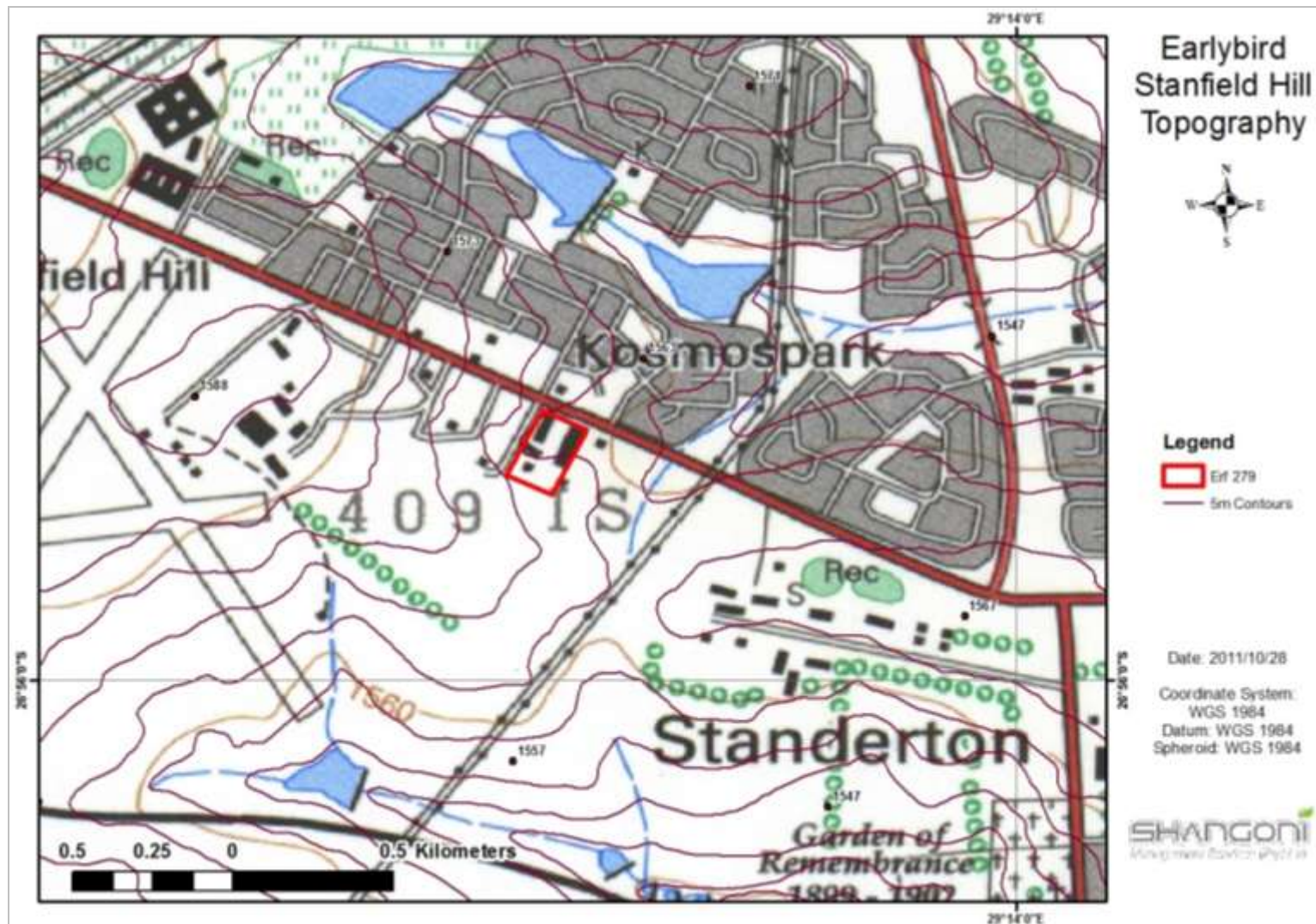


Figure 10: Topography of the site.

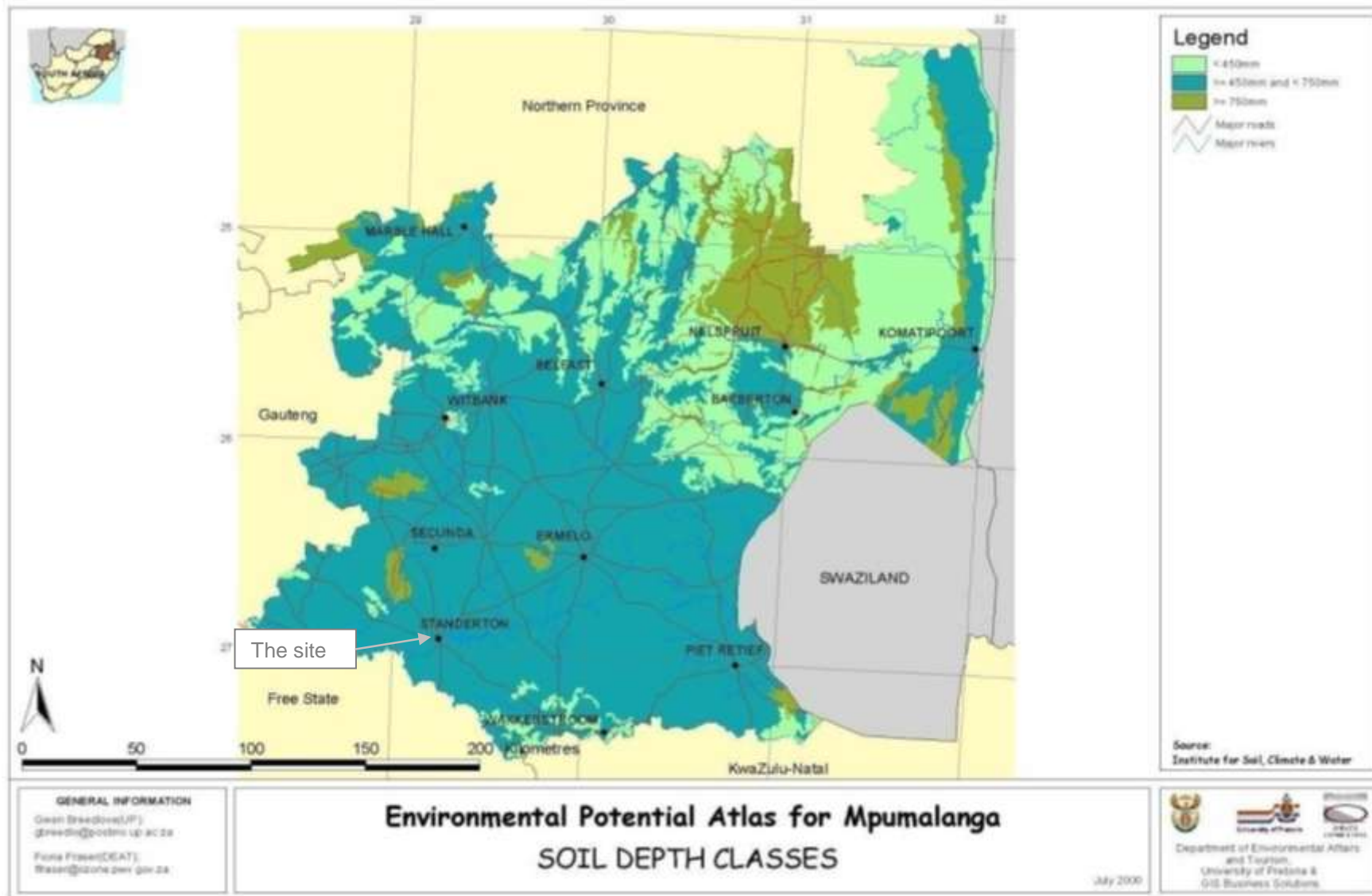


Figure 11: Soil depth in Mpumalanga

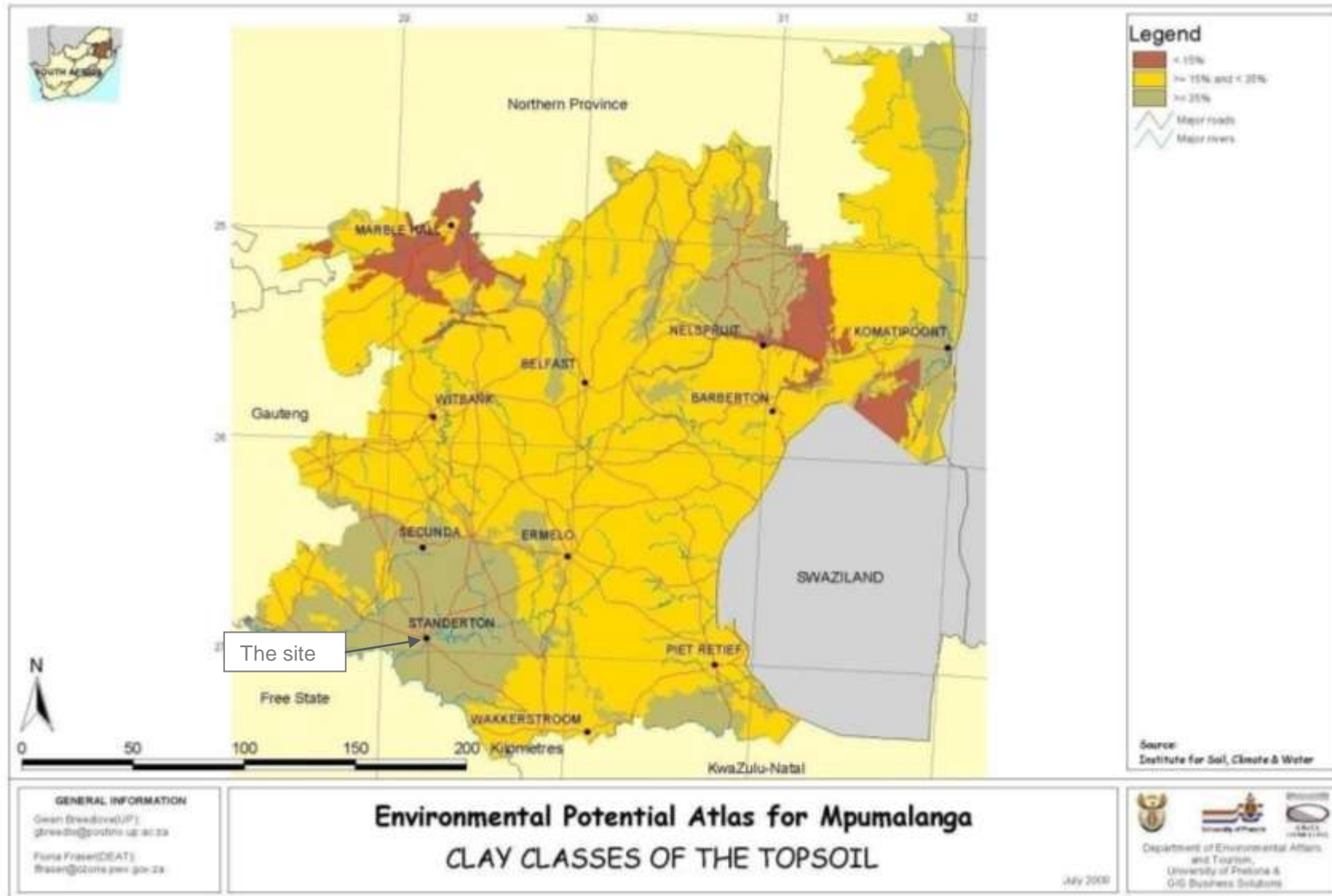


Figure 12: Clay classes of the topsoil in Mpumalanga

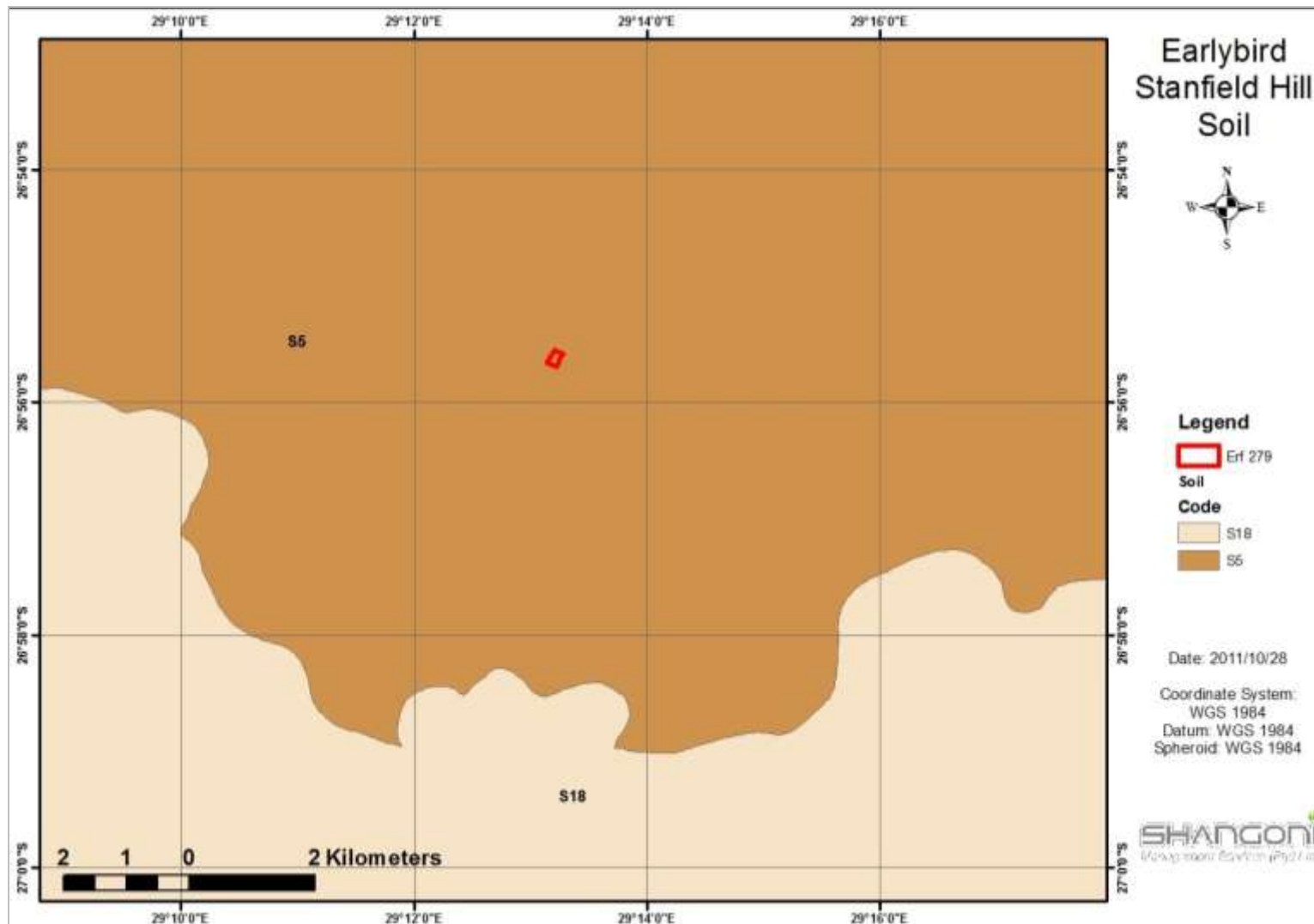


Figure 13: Classification of the soil type present at the project site

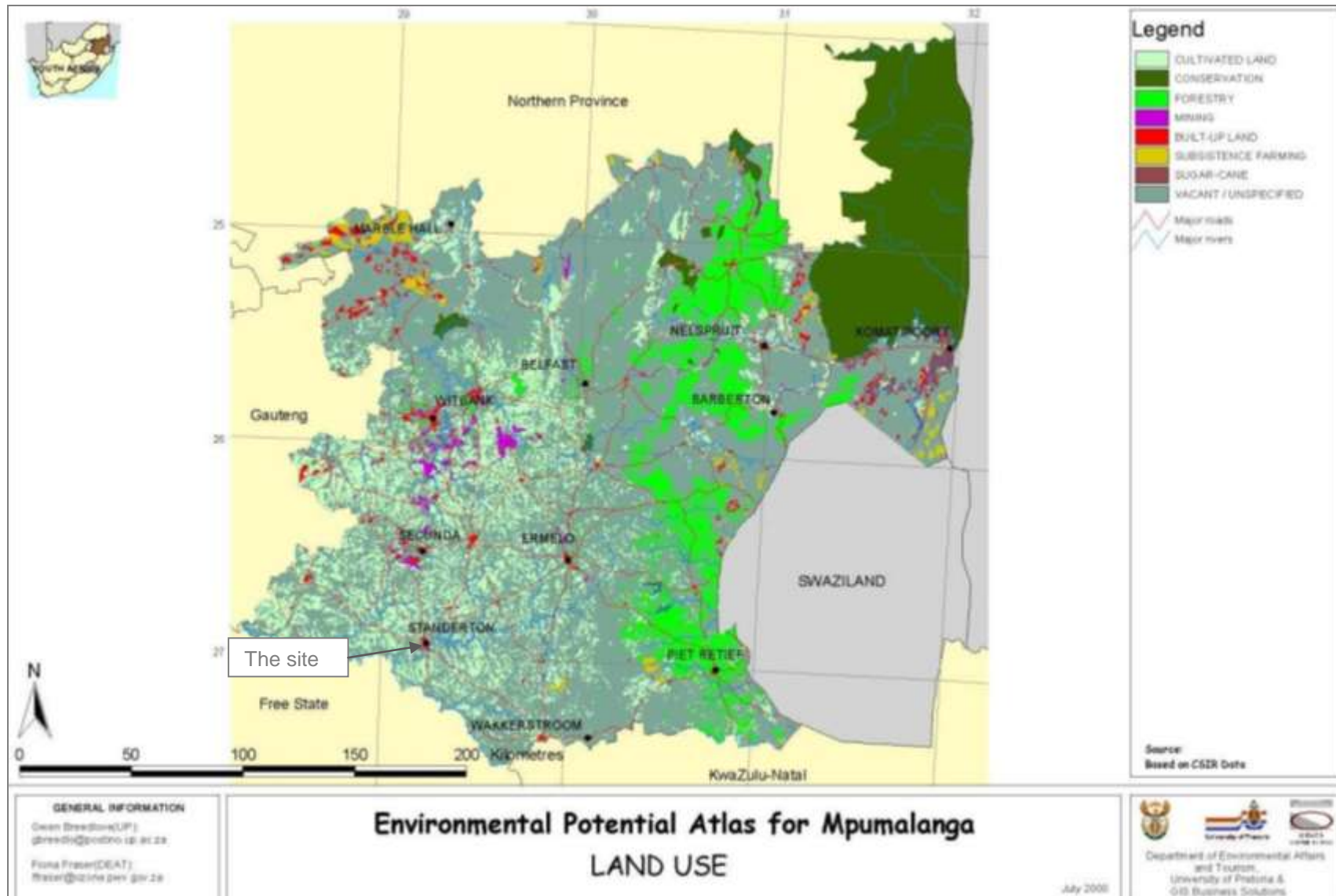


Figure 14: Land uses in Mpumalanga

2.6 Fauna and Flora

Due to the disturbed nature of the vegetation onsite, a desktop assessment was undertaken to describe the vegetation of the area surrounding the site.

This site falls within the Grass Land biome region and is specifically classified as Soweto Highveld Grassland (Figure 15).

The Grassland Biome is found mainly on the high central plateau of South Africa and the inland regions of KwaZulu-Natal and the Eastern Cape. Frost, fire and grazing maintain the dominance of grasses and prevent the establishment of trees. Fire is a natural factor caused by lightning and regular burning is essential to maintaining the structure and biodiversity of this biome. Grasslands are unique ecosystems with rich and often highly specialised animal life, both above and below ground. Formerly, native grasslands supported vast herds of ungulates such as blesbok, black wildebeest and springbok. Bird densities range from 50 to 380 birds per 100 ha, and include a wide range of species.

South African grasslands essentially comprise of a simple, single-layered herbaceous community of tussocked (or bunch) grasses. It is not generally known that the majority of plant species in grasslands are non-grassy herbs, most of which are perennial plants with large underground storage structures which can live for several decades. The Grassland Biome has an extremely high biodiversity, second only to the Fynbos Biome. At a 1 000 square metre scale, the average species richness of the Grassland Biome is even higher than those of most Fynbos communities, being surpassed only by Renosterveld.

Soweto Highveld grasslands usually occur at between 1 420 and 1 760 metres above sea level on undulating areas of the Highveld plateau. The tufted grasslands are dense and short to medium-high in length. *Themeda triandra* almost completely dominates the grasslands and occurs with a number of other grass species such as *Eragrostis racemosa*, *Tristachya leucothrix*, *Elionurus muticus* and *Heteropogon contortus*.

The natural grasslands are classified as endangered and are poorly conserved at present (Mucina & Rutherford, 2006). However, the site cannot be classified as native Soweto Highveld grassland as a result of its disturbed state.

During the site visit, it was noted that the absence of trees in the area precludes a number of bird species from occurring (lack of nesting habitat). Vegetation cover onsite is conducive to foraging and nesting habitat for a variety of smaller mammals and birds. Very few faunal species were encountered and no rare or endangered species were recorded on site.



Table 3: Important taxa within the Soweto Highveld grasslands.

Vegetation	Invertebrates	Vertebrates
<p>Graminoids: <i>Paspalum dilatatum</i>, <i>Harpochloa falx</i>, <i>Cymbopogon pospischilii</i>, <i>Cynodon dactylon</i>, <i>Eragrostis capensis</i>, <i>E. curvula</i>, <i>E. chloromelas</i>, <i>E. planiculmis</i>, <i>E. plana</i>, <i>E. racemosa</i>, <i>Heteropogon contortus</i>, <i>Hyparrhenia hirta</i>, <i>Setaria nigrirostris</i>, <i>S. sphacelata</i>, <i>Themeda triandra</i>, <i>Microchloa caffra</i>, <i>Tristachya leucothrix</i>, <i>Andropogon schirensis</i>, <i>Aristida adscensionis</i>, <i>A. bipartita</i>, <i>A. congesta</i>, <i>A. junciformis</i>, subsp. <i>galpinii</i>, <i>Cymbopogon caesius</i>, <i>Digitaria diagonalis</i>, <i>Andropogon appendiculatus</i>, <i>Elionurus muticus</i>, <i>Brachiaria serrata</i>, <i>Diheteropogon amplexens</i>, <i>Eragrostis micrantha</i>, and <i>E. superb</i>.</p>	<p>Lower Invertebrates: Garden Snail (<i>Helix aspersa</i>) Common Earthworm (<i>Lumbricus terrestris</i>) Wood Lice (Order <i>isopoda</i>) Large Centipedes (Order <i>scolopendromorpha</i>) Earth Centipedes (Order <i>geophilmorpha</i>) Stone Centipedes (Order <i>lithobiomorpha</i>)</p>	<p>Mammals: Porcupine Hedgehog Springhare Ground Squirrel Giant Rat Suricates</p>
<p>Herbs: <i>Vernonia oligocephala</i>, <i>Geigeria aspera</i> var. <i>aspera</i>, <i>Hermannia depressa</i>, <i>Euryops gilfillanii</i>, <i>Dicoma anomala</i>, <i>Acalypha angustata</i>, <i>Rhynchosia effusa</i>, <i>Wahlenbergia undulata</i>, <i>Selago densiflora</i>, <i>Berkheya setifera</i>, <i>Hibiscus pusillus</i>, <i>Lippia scaberrima</i>, <i>Schistostephium crataegifolium</i>, <i>Senecio coronatus</i>, <i>Justicia anagalloides</i>, <i>Graderia subintegra</i>, <i>Helichrysum miconiifolium</i>, <i>H. rugulosum</i>, <i>H. nudifolium</i> var. <i>nudifolium</i> and <i>Haplocarpha scaposa</i>.</p>	<p>Insects: Fishmoths (Order <i>thysanura</i>) Skimmer Dragonflies (Family <i>libellulidae</i>) Darnier Dragonflies (Family <i>aeschnidae</i>) Damsel flies (Suborder <i>zygoptera</i>) Common Termites (Family <i>termitidae</i>) Cockroaches (Order <i>blattodea</i>) Earwigs (Order <i>dermaptera</i>) Grasshoppers (Family <i>acrididae</i>) Bush Crickets (Family <i>tettigoniidae</i>) Praying Mantis (Order <i>mantodea</i>) Ground Beetles (Family <i>carabidae</i>) Weevils (Superfamily <i>curculionoidea</i>) Mosquitoes (Family <i>culicidae</i>) Horseflies (Family <i>tabanidae</i>) House flies (Family <i>muscidae</i>) Social Wasps (Family <i>vespidae</i>) Social Bees (Family <i>apidae</i>) African Monarch (<i>Dannaus chryssipus</i>) Garden Acraea (<i>Acraea horta</i>) Foxy Charaxes (<i>Charaxes jasius</i>) Common joker (<i>B. ilithyia</i>) Gaudy Commodore (<i>Precis octavia</i>) Garden Commodore (<i>Precis archeria</i>) Painted Lady (<i>Vanessa cardui</i>) Common Blue (<i>Leptotes pirithous</i>)</p>	<p>Amphibians: Guttural Toad (<i>Bufo gutturalis</i>) Bushveld rain frog (<i>Breviceps adspersus</i>) Bubbling Kassina (<i>Kassina senegalensis</i>) Common Caco (<i>Cacosternum boettgeri</i>) Natal Sand Frog (<i>Tomopterna natalensis</i>)</p>
<p>Geophytic herbs: <i>Heamanthus montanus</i> and <i>H. humilis</i> subsp. <i>hirsutus</i>.</p>		<p>Reptiles: Brown House Snake (<i>Lamprophis fuliginosus</i>) Common Slugeater (<i>Duberria lutrix</i>) Rinkhals Spotted Sand Lizard (<i>Pedioplanis lineocellata</i>)</p>
<p>Herbaceous Climber: <i>Rhynchosia totta</i>.</p>		
<p>Low shrubs: <i>Ziziphus zeyheriana</i>, <i>Anthospermum rigidum</i> subsp. <i>pumilum</i>, <i>A. hispidulum</i>, <i>Felicia muricata</i> and <i>Berkheya annectens</i>.</p>		



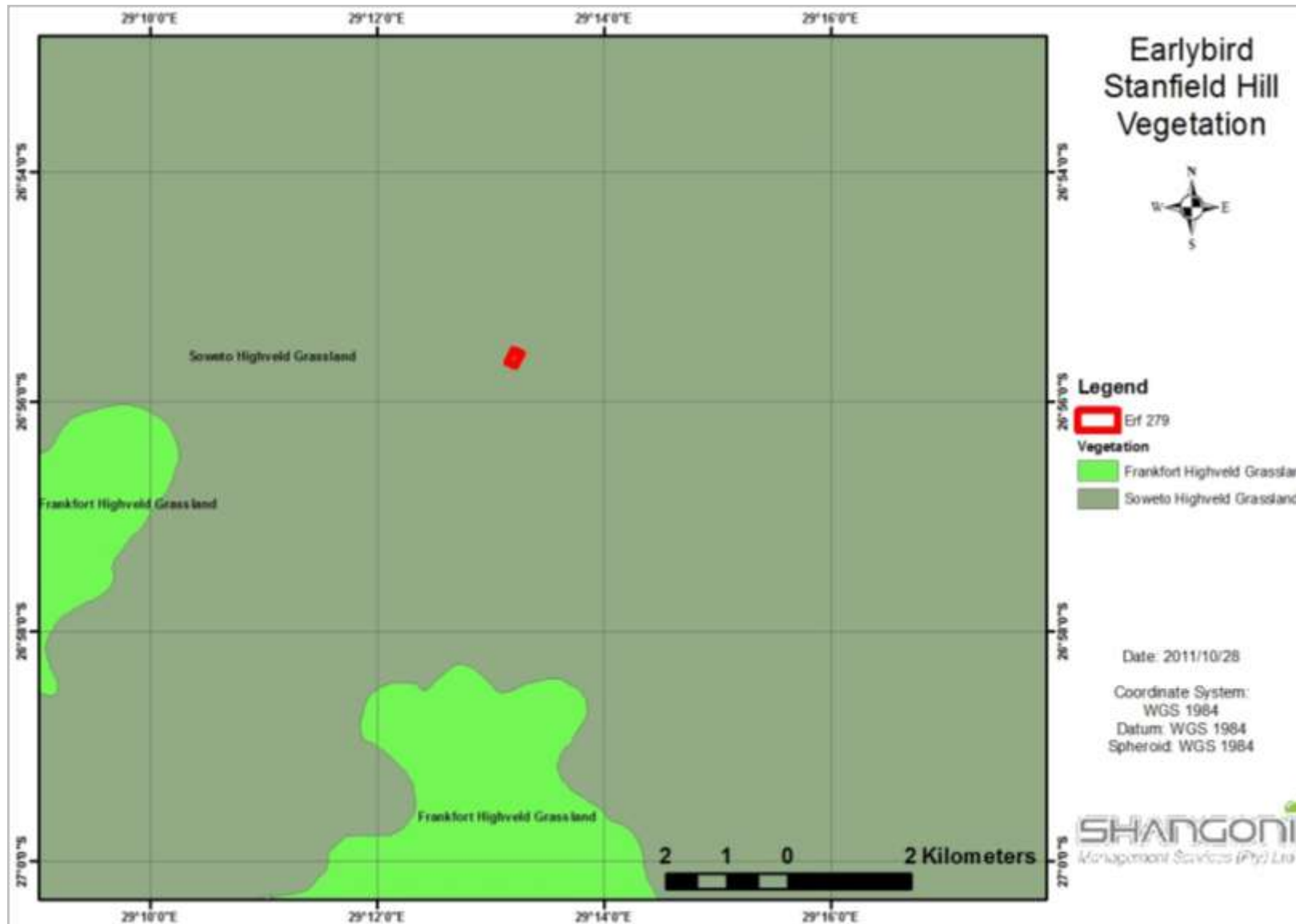


Figure 15: Vegetation type of the site

2.7 Surface- and groundwater

The site falls within the Vaal River catchment and the C11M quaternary drainage region of the Upper Vaal Water Management Area (Refer to Figure 18). The area is mainly drained by means of sheet wash to the west, into a small stream called the Brakspruit, which is a tributary of the Vaal River (Refer to Figure 16 and 17). No groundwater is or will be extracted for use in the abattoir and its rendering facility.

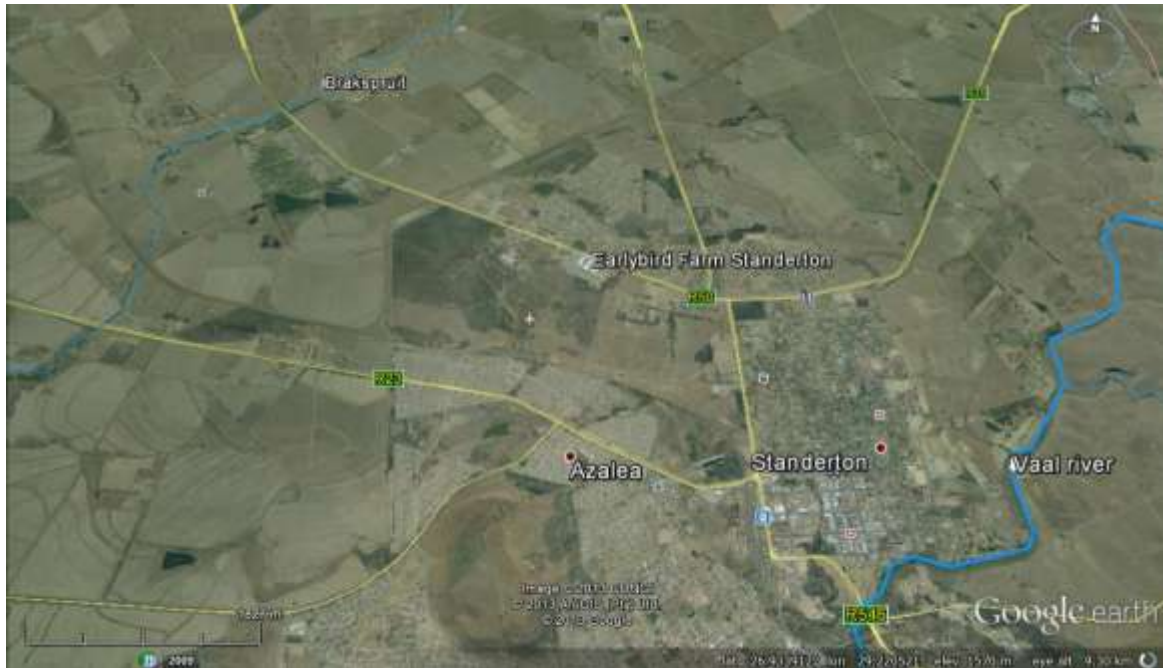


Figure 16: Rivers surrounding Earlybird Farm Standerton.

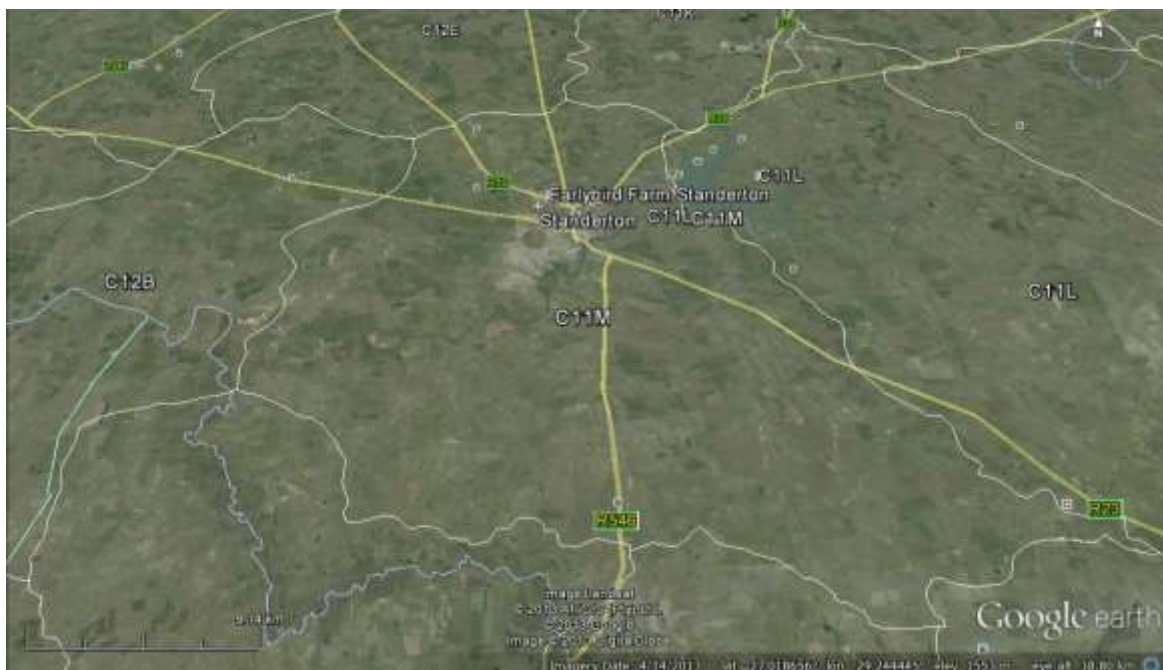


Figure 17: Quaternary catchment within which Earlybird Farm Standerton falls.





Figure 18: Primary catchments in Mpumalanga

2.8 Noise

Noise in the area is mainly generated by farming activities, residential activities, abattoir activities, road traffic from the nearby main roads and general bird and animal life.

2.9 Sites of archaeological and cultural interest

The South African Heritage Resources Agency (SAHRA) has indicated that no Heritage Impact Assessments are required as the project will not have any impact on heritage resources. The letter from SAHRA is attached under Appendix E.

2.10 Visual aspects

The existing Earlybird Farm abattoir has a visual impact on the receiving environment. The abattoir and rendering facility buildings are clearly visible from the adjacent access roads (the R50 and Viking Road), as well as from surrounding residential areas.

2.11 Air Quality

2.11.1 Highveld Priority Area

The site lies within the Highveld air-shed. This air-shed was declared a priority area in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) in Government Notice 1123 in Government Gazette No 30518 of 23 November 2007.

2.11.2 Air Quality Impact Assessment

The following information was abstracted from the Specialist Air Quality Impact Assessment Report for the Earlybird Farm Standerton operation (abattoir and rendering facility) compiled by Airshed Planning Professionals (Pty) Ltd.

The main sources likely to contribute to background concentrations of pollutants are stack, vent and fugitive emissions from mining and power generation activities in the area, vehicle tailpipe emissions, household fuel combustion, biomass burning (veld fires) and various other miscellaneous fugitive dust sources (wind erosion of open areas, vehicle-entrainment of dust along paved and unpaved roads, informal refuse burning and tyre burning).

The Mpumalanga Department of Economic Development and Environmental Affairs operates an air quality monitoring station (the Standerton monitoring station) at the Igugulabasha Primary School, in the Sakhile residential area, approximately 4km south of the Earlybird Farm Standerton abattoir. Measured annual average Nitrogen dioxide (NO₂) and Sulphur dioxide (SO₂) concentrations were below the respective annual average National Ambient Air Quality Standards (NAAQS) (21ppb and



19ppb) for the averaging period 2008-2012 while Particulate matter (PM) 10 and PM2.5 concentrations exceeded the annual NAAQS. Especially high particulate concentrations were measured in the morning peak time hours, possibly due to vehicle entrainment on unpaved roads, and during the evening, possibly due to vehicle entrainment as well as domestic fuel burning for cooking and heating.

The predominant wind direction at the Grootdraaidam Eskom monitoring station is east-south-easterly with a ~16% frequency of occurrence. Winds from the south-western sector are relatively infrequent occurring <4% of the total period. Calm conditions (wind speeds < 1 m/s) occur 9.9% of the time.

Winds from the north-western sector increase during day-time conditions. During the night-time an increase in east-southeast flow is observed with a decrease in westerly air flow.

Measured daily minima at the Grootdraaidam Eskom monitoring station, range from 11.7°C in January to -9.8°C in June, with maximum temperatures ranging from 35.7°C in October to 24.5°C in July.

The study area falls within a summer rainfall region, with over 80% of the annual rainfall occurring during the October to March period.

2.11.3 Neighbouring receptors

The following information was abstracted from the Specialist Air Quality Impact Assessment Report for the Earlybird Farm Standerton operation (abattoir and rendering facility) compiled by Airshed Planning Professionals (Pty) Ltd.

Dispersion modelling was undertaken to determine highest daily and annual average Ground Level Concentrations (GLCs) for PM10, highest hourly and annual average Nitrogen oxides (NOx) concentrations, highest hourly, highest daily and annual average Sulphur dioxide (SO₂) concentrations as well as highest hourly Volatile Organic Compounds (VOC) and Hydrogen sulphide (H₂S) concentrations. These averaging periods were selected to facilitate the comparison of predicted pollutant concentrations with NAAQS.

GLC isopleth plots presented in this section depict interpolated values from the concentrations predicted by Atmospheric Dispersion Modelling System at each of the receptor grid points specified.

Typically, ambient air quality applies to areas where the Occupational Health and Safety regulations do not apply, thus outside the property or lease area. Ambient air quality standards are therefore not occupational health indicators but applicable to areas where the general public has access i.e. off-site.



Particulate Matter 10 (PM10)

It is predicted that the annual average PM10 NAAQS will only be exceeded inside the site boundary. Annual average PM10 Ground Level Concentrations (GLCs) outside the site boundary are predicted to be below $10\mu\text{g}/\text{m}^3$ (25% of the NAAQS). It is predicted that the daily PM10 NAAQS will be exceeded for up to 100 m south and southeast of the site boundary, but no sensitive receptors are present in this area.

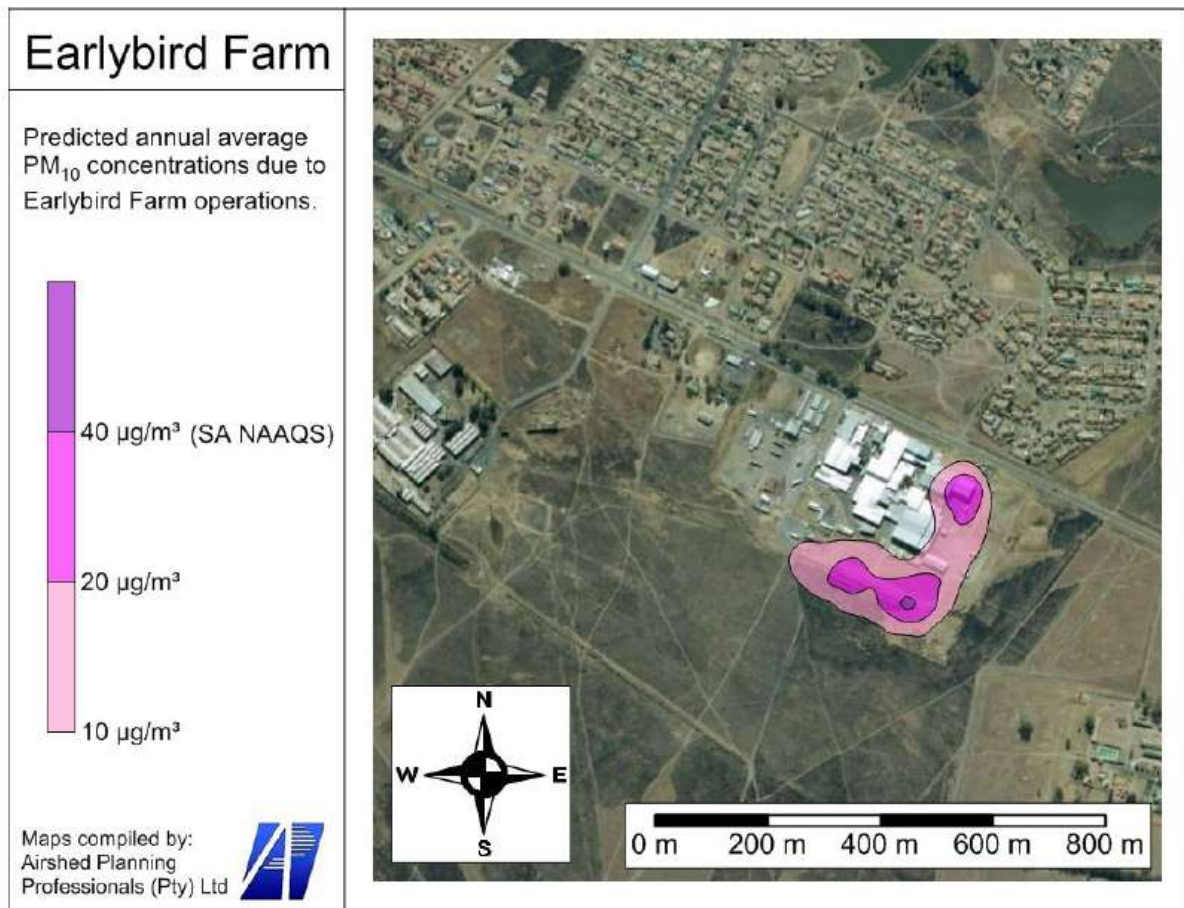


Figure 19: Predicted Annual Average PM10 GLCs

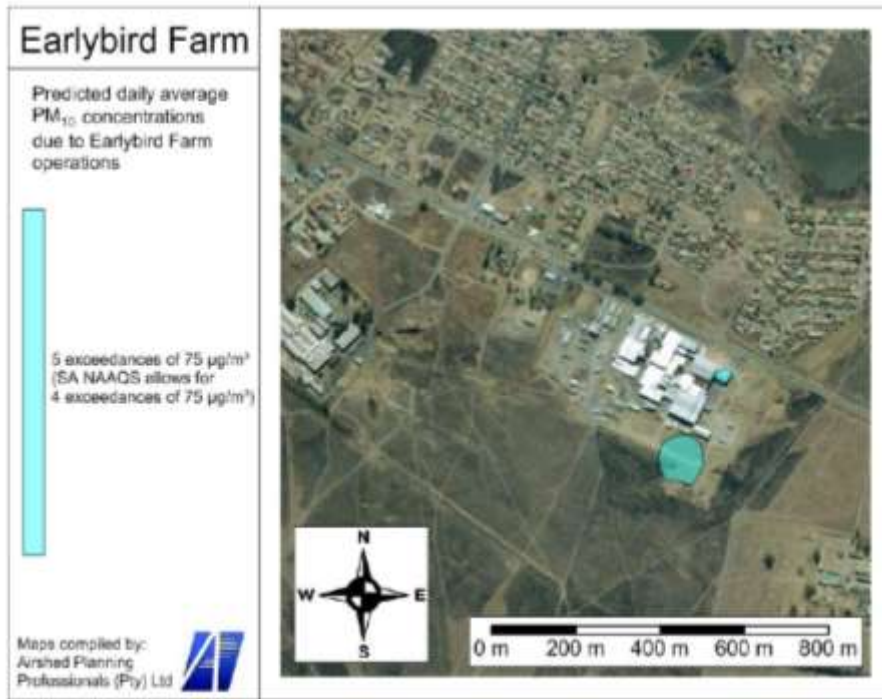


Figure 20: Exceedance of Daily NAAQS for PM10.

Particulate Matter 2.5 (PM2.5)

It is predicted that the annual average PM2.5 NAAQS will not be exceeded anywhere in the study area, the highest off-site PM2.5 GLCs are predicted to be below $4\mu\text{g}/\text{m}^3$ (20% of the NAAQS). No exceedances of the daily PM2.5 NAAQS are predicted anywhere in the study area.

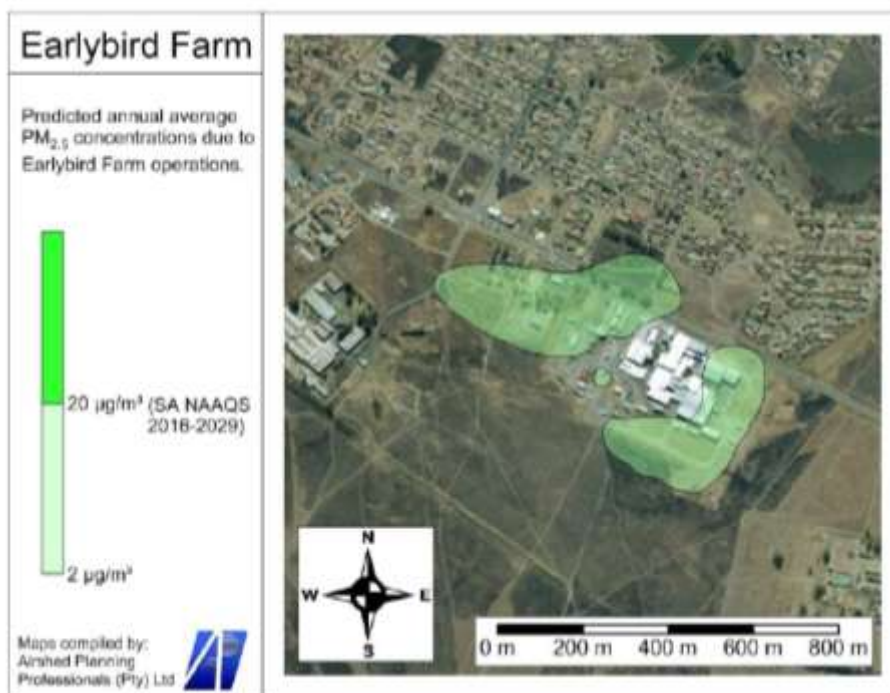


Figure 21: Predicted Annual Average PM2.5 GLCs.



Sulphur dioxide (SO₂)

It is predicted that the annual average SO₂ NAAQS will not be exceeded anywhere in the study area, the highest predicted off-site SO₂ GLCs are below 15µg/m³ (38% of the NAAQS). No exceedances of the daily SO₂ NAAQS were predicted anywhere in the study area, while exceedances of the hourly SO₂ NAAQS were predicted along the R50 to the northwest of the site.

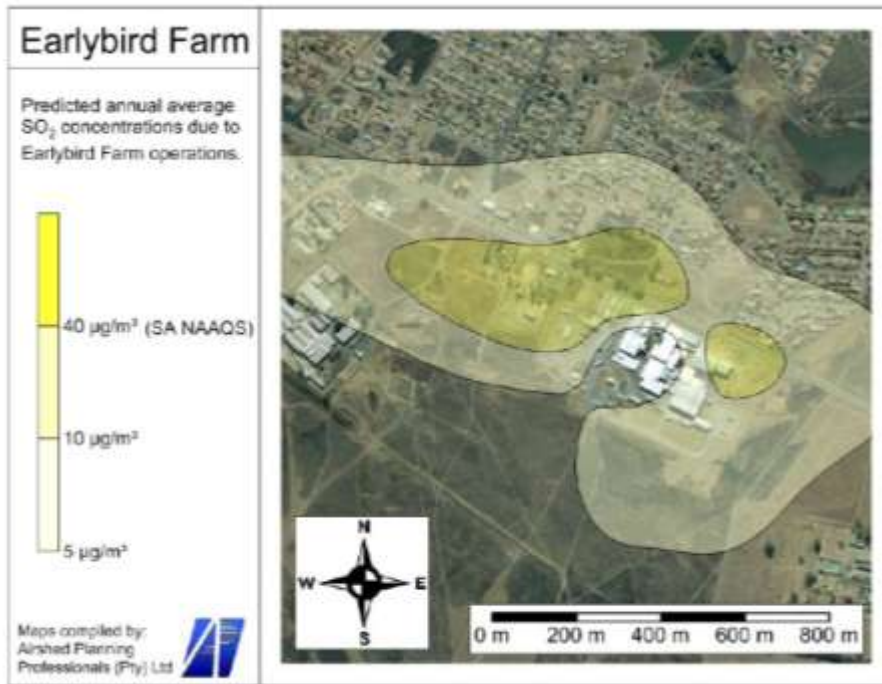


Figure 22: Figure 5-4: Predicted Annual Average SO₂ GLCs

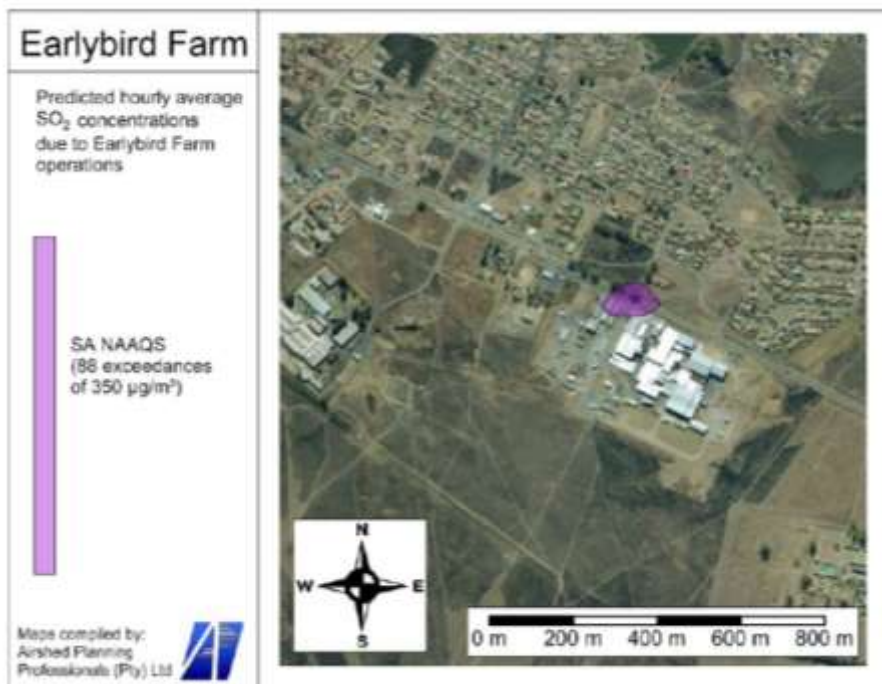


Figure 23: Exceedance of Hourly NAAQS for SO₂.



Nitrogen oxides (NO_x)

It is predicted that the annual average NO₂ NAAQS will not be exceeded anywhere in the study area, the highest predicted off-site NO_x GLCs are below 10µg/m³ (25% of the NAAQS). No exceedances of the hourly NO₂ NAAQS are predicted anywhere in the study area.

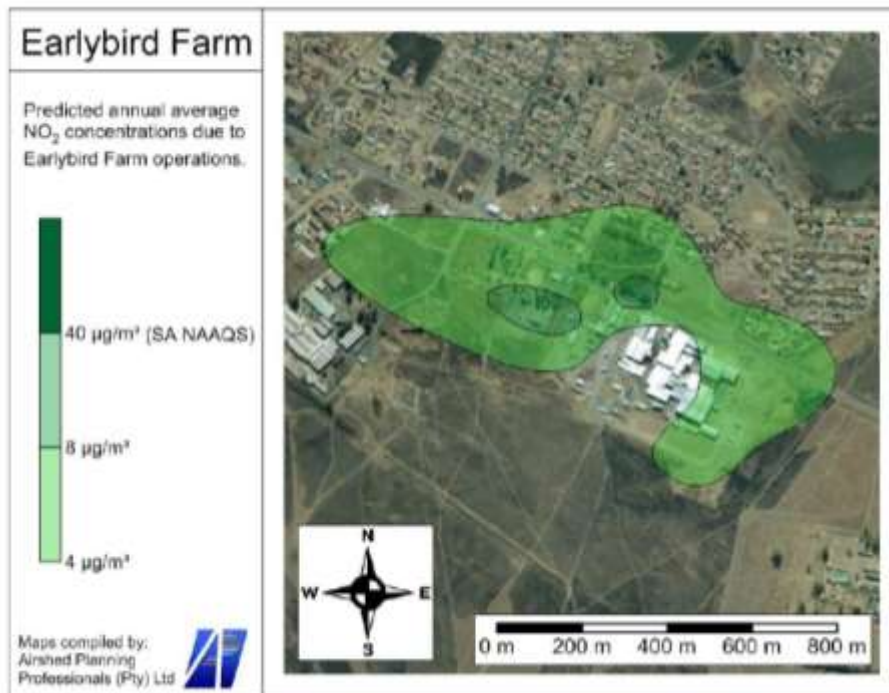


Figure 24: Figure 5-6: Predicted Annual Average NO_x GLCs

Odour

With the current mitigation measures highest hourly Volatile Organic Compounds (VOC) concentrations are predicted to exceed the odour detection limit up to 400m from the site in all directions. Predicted VOC concentrations exceed the 50% odour recognition threshold to the west and south west of the rendering plant. No exceedances of the Hydrogen sulphide (H₂S) odour detection limit or 50% recognition threshold are predicted with current control technologies in operation.

To highlight the importance of mitigation of odorous compounds from the rendering plant a scenario was simulated with no mitigation measures in place. Without any mitigation measures in place the predicted H₂S GLCs exceed the 50% odour recognition threshold up to 700m from the plant in all directions while VOC GLCs exceed the 50% odour recognition threshold up to 2km from the plant in all directions. With no mitigation measures in place H₂S and VOC GLCs exceed the odour detection limit over the entire study area, i.e. further than 3km from the plant in each direction.

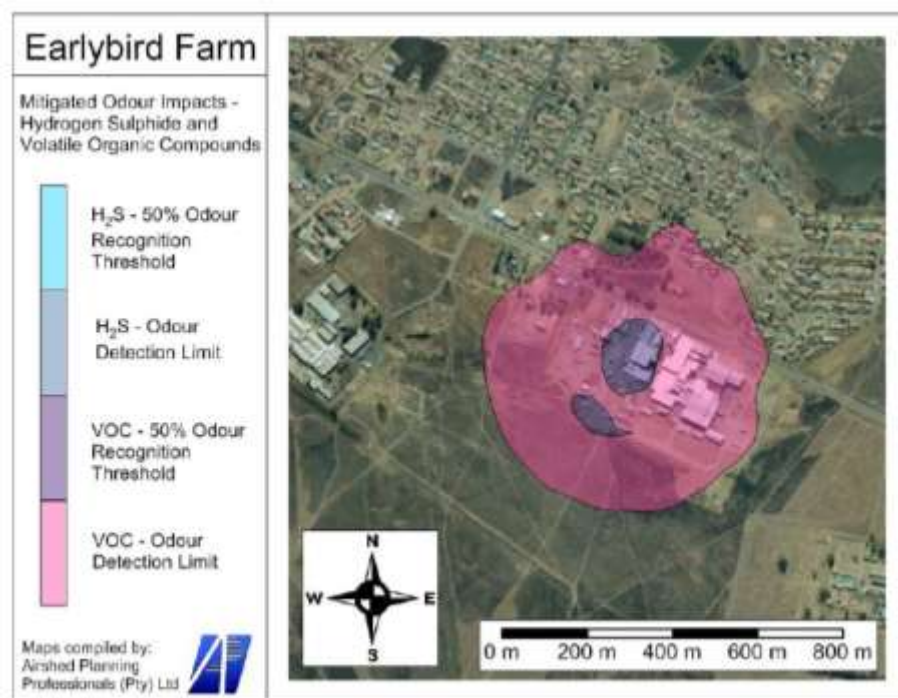


Figure 25: Figure 5-7: Predicted Highest Hourly Odorous compound GLCs while current mitigation measures are active.

2.12 Socio-economic aspects

Earlybird Farm Standerton operation falls under the jurisdiction of the Lekwa Local Municipality within the Gert Sibande District Municipality. Gert Sibande District Municipality is the relevant licensing authority.

2.12.1 Demography

According to 2011 census, 115 662 people formed part of the 31 071 households in the Lekwa Local Municipality. The average household size is 3.7 people per household. There are 99.4 men for every 100 women in the municipality and Table 4 below shows the age structure of the municipality.

Table 4: Lekwa local municipality age structure -Census 2011 (Statistics South Africa, 2011).

Age Group	Percentage (%)
Under 15 years of age	28.6
15 to 64 years of age	66.4
Over 65 years of age	5w
Total population	100



2.12.2 Major economic activities

The Lekwa Local Municipality is relatively industrialised and has a large number of sectors in the municipal area. These sectors include the mining of coal and the lignite sector, which is the main sector in the Lekwa Municipality (KV3 Engineers, 2009). Other sectors include textiles, engineering, animal feed producers, dairy producers, mining, hunting, farming and grain mills, community services, electricity, gas, trade, steam and hot water supply. The agricultural activities in Lekwa include sheep-, chicken- and cattle- farming and the cultivation of sorghum, mushrooms, maize, sunflower and flowers (KV3 Engineers, 2009).

The land use within the municipality is almost entirely dominated by agriculture. Many of the grasslands in the municipal area are used for the rearing of dairy cattle. In the last 15 years the poultry sector has developed substantially and there are approximately 50 poultry broiler farms in the Lekwa municipal area. Small areas in the vicinity of rivers are used for irrigated cultivation in the vicinity of rivers.

2.12.3 Unemployment and employment

The 2011 census found that the official unemployment rate was 25.9% and the youth unemployment rate (15 to 34 years of age) was 35.2%. The dependency ratio is 50.6 per 100 people between the ages of 15 and 64 years (Statistics South Africa, 2011).



3. LEGISLATION AND GUIDELINES APPLICABLE

3.1 Laws of general application

- Constitution of the RSA, 1996 (Act No. 108 of 1996)
- National Environmental Management Act, 1998 (Act No. 107 of 1998)
- Environment Conservation Act, 1989 (Act No. 73 of 1989 as amended)
- Promotion of Access to Information Act, 2000 (Act No. 2 of 2000 as amended)

3.2 Atmospheric emissions

- National Environmental Management: Air Quality Act (Act No. 39 of 2004)
- Environment Conservation Act, 1989 (Act No. 73 of 1989) – Noise Control Regulations in terms of Section 25 of the Environment Conservation Act, 1989

3.3 Water Management

- National Water Act, 1998 (Act No. 36 of 1998)

3.4 Waste management

- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)

3.5 Planning of new activities

- National Environmental Management Act, 1998 (Act No. 107 of 1998)

3.6 Biodiversity

- National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)
- Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983)
- National Veld and Forest Fire Act, 1998 (Act No 101 of 1998)
- Agricultural Pest Act, 1983 (Act No 36 of 1983 as amended) – GN R276 of 5 March 2004
- National Fencing Act, 1963 (Act No 31 of 1963 as amended)
- National Forest and Fire Laws Amendment Act (Act No 12 of 2001)

3.7 Land and Soil Management

- National Environmental Management Act, 1998 (Act No. 107 of 1998)
- Environmental Conservation Act, 1989 (Act No. 73 of 1989)



3.8 Heritage resources

- National Heritage Resources Act No 25 of 1999 (Act No. 25 of 1999, as amended)

3.9 Protected areas

- National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003 as amended)

During the course of the development, the developer and contractors must comply with all other relevant legislation (including the bylaws of the Local Municipality).



4. PUBLIC PARTICIPATION PROCESS

4.1 Introduction

A Public Participation Process (PPP) is a requirement in terms of the 2010 EIA Regulations of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004). It forms an integral part of any EIA process.

This section provides information pertaining to the PPP that was conducted by Shangoni Management Services during this particular assessment.

The purpose of this process is to gather information from the community and relevant stakeholders that could ultimately affect the decision-making of Earlybird Farm Standerton. The community and public have been identified as I&APs and have been given the opportunity to participate in this process. Their comments, whether positive or negative, will influence the decision of the Authorities and the applicant's final actions.

4.2 Objectives of the PPP

The PPP has the following objectives:

- To inform I&APs as well as all stakeholders of the project;
- To provide an opportunity for I&APs and stakeholders to raise environmental issues or concerns and make suggestions;
- To promote transparency and an understanding of the project and its consequences; and
- To serve as a structure for liaison and communication with I&APs and stakeholders.

To summarise, the objective of the on-going PPP is to promote openness and transparency concerning the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation. The process should by no means be regarded as a vehicle to temper opposition or objections. Any conclusions agreed upon must be socially, financially and technically acceptable and feasible in order to meet the requirements of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) and the vision of Earlybird Farm.



4.3 The Guidelines Followed for the PPP

The PPP for this project was conducted by Shangoni Management Services and undertaken strictly according to the guidelines in terms of the National Environmental Management Act (NEMA), No. 107 of 1998, Chapter 6:

4.4 Public Participation Process

54. (1) This regulation only applies in instances where adherence to the provisions of this regulation is specifically required.
- (2) The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by-
- (a) fixing a notice board at a place conspicuous to the public at the boundary or on the fence of -
- (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to -
- (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in –
- (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in sub regulation (c) (ii); and



- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to
 - (i) illiteracy;
 - (ii) disability;
 - (iii) or any other disadvantage.

(3) A notice, notice board or advertisement referred to in sub regulation (2) must

- (a) give details of the application which is subjected to public participation; and
- (b) state-
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (vi) the manner in which and the person to whom representations in respect of the application may be made.

(4) A notice board referred to in sub regulation (2) must-

- (a) be of a size at least 60cm by 42cm; and
- (b) display the required information in lettering and in a format as may be determined by the competent authority.

(5) Where deviation from sub regulation (2) may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub regulation to the extent and in the manner as may be agreed to by the competent authority.

(6) Where a basic assessment report, scoping report or environmental impact assessment report as contemplated in regulations 22, 28 and 31 respectively is amended because it has been rejected or because of a request for additional information by the competent authority, and such amended report contains new information, the amended basic assessment report, scoping report or environmental impact assessment report must be subjected to the processes contemplated in regulations 21, 27 and 31, as the case may be, on the understanding that the application form need not be resubmitted.

(7) When complying with this regulation, the person conducting, the public participation process must ensure that-

- (a) information containing all relevant facts in respect of the application is made available to potential interested and affected parties; and



- (b) participation by potential interested and affected parties is facilitated in such a manner that all potential interested and affected parties are provided with a reasonable opportunity to comment on the application.

(8) Unless justified by exceptional circumstances, as agreed to by the competent authority, the applicant and EAP managing the environmental assessment process must refrain from conducting any public participation process during the period of 15 December to 2 January.

Register of interested and affected parties

55.(1) An EAP managing an application must open and maintain a register which contains the names, contact details and addresses of -

- (a) all persons who, as a consequence of the public participation process conducted in respect of that application in terms of regulation 54, have submitted written comments or attended meetings with the applicant or EAP;
- (b) all persons who, after completion of the public participation process referred to in paragraph (a), have requested the applicant or the EAP managing the application, in writing, for their names to be placed on the register; and
- (c) all organs of state which have jurisdiction in respect of the *activity* to which the application relates.

(2) An EAP managing an application must give access to the register to any person who submits a request for access to the register in writing.

Registered interested and affected parties entitled to comment on submissions

56.(1) A registered interested and affected party is entitled to comment, in writing, on all written submissions, including draft reports made to the competent authority by the applicant or the EAP managing an application, and to bring to the attention of the competent authority any issues which that party believes may be of significance to the consideration of the application, provided that-

- (a) comments are submitted within-
 - (i) the timeframes that have been approved or set by the competent authority; or
 - (ii) any extension of a timeframe agreed to by the applicant or EAP;
- (b) a copy of comments submitted directly to the competent authority is served on the EAP; and
- (c) the interested and affected party discloses any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application.

(2) Before the EAP managing an application for environmental authorisation submits a final report compiled in terms of these Regulations to the competent authority, the EAP must give registered interested and affected parties access to, and an opportunity to comment on the report in writing.

(3) The report referred to in sub regulation (2) include-



- (a) basic assessment reports;
- (b) basic assessment reports amended and resubmitted in terms of regulation 24 (4);
- (c) scoping reports;
- (d) scoping reports amended and resubmitted in terms of regulation 30(3);
- (e) specialist reports and reports on specialised processes compiled in terms of regulation 32;
- (f) environmental impact assessment reports submitted in terms of regulation 31;
- (g) environmental impact assessment reports amended and resubmitted in terms of regulation 34(4); and
- (h) draft environmental management programmes compiled in terms of regulation 33.

(4) The draft versions of reports referred to in sub regulation (3) must be submitted to the competent authority prior to awarding registered interested and affected parties an opportunity to comment.

(5) Registered interested and affected parties must submit comments on draft reports contemplated in sub regulation (4) to the EAP, who should record it in accordance with regulations 21, 28 or 31.

(6) Registered interested and affected parties must submit comments on final reports contemplated in sub regulation (3) to the competent authority and provide a copy of such comments to the applicant or EAP.

(7) The competent authority must, in order to give effect to section 24O of the Act, on receipt of the draft reports contemplated in sub regulation (5), request any State department that administers a law relating to a matter affecting the environment to comment within 40 days.

(8) The timeframe of 40 days as contemplated in sub regulation (7) must be read as 60 days in the case of waste management activities as contemplated in the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), on which the Department of Water Affairs must concur and issue a record of decision in terms of section 49(2) of the National Environmental Management: Waste Management Act, 2008 (Act No. 59 of 2008).

(9)(a) When a State department is requested by the competent authority to comment, such State department must, within 40 days or in the case of Department of Water Affairs, 60 days for waste management activities, of being requested to comment by the competent authority, provide comments to the competent authority.

(b) If a State department fails to submit comments within 40, or 60 days for waste management activities, from the date on which the Minister, MEC, Minister of Mineral Resources or identified



competent authority requests such State department in writing to submit comment, it will be regarded that there are no comments.

Comments of interested and affected parties to be recorded in reports submitted to competent authority

57. (1) The EAP managing an application for environmental authorisation must ensure that the comments of interested and affected parties are recorded in reports and that such written comments, including records of meetings, are attached to the report, submitted to the competent authority in terms of these Regulations.

(2) Where a person is desiring but unable to access written comments as contemplated in sub regulation (1) due to-

- (i) a lack of skills to read or write;
- (ii) disability; or
- (iii) any other disadvantage,

reasonable alternative methods of recording comments must be provided for.

4.5 Public Participation Process Followed

The following PPP was conducted for the project:

- Identification of key Interested and Affected Parties (all adjacent landowners);
- Identification of key stakeholders;
- Informing the key stakeholders of the process by means of correspondence;
- Placement of a press notice in the Beeld and Standerton Advertiser newspapers, informing the public of the process;
- Placement of site notices at the site; and
- Correspondence with I&APs and stakeholders and the addressing of their comments.

4.5.1 Identification & Registration of I&APs on a Database

Through networking and advertising, I&APs were registered on a database. Shangoni ensured that individuals or organisations from an institutional as well as a geographical point of view were identified.

Geographically, Shangoni focused on nearby or adjacent landowners, communities and structures that represents them. Institutionally, the focus was on those organisations or individuals that may influence policies and decisions or make a contribution to the project. Not all of these organisations were necessarily in the direct project sphere of impact.



4.5.2 Notification of key stakeholders and I&APs

Stakeholders are all the relevant Authorities and land owners that may possibly be affected by this project. The following stakeholders were identified:

Table 5: Stakeholders identified during the PPP

Name	Farm/Association	Postal Address	Contact Details
Ms. Nelisiwe Sithole / CHP Kleynhans	Department of Agriculture, Rural Development and Land Administration	Private Bag X11219 Nelspruit 1200	Tel:013 766 6067/6068 Fax:013 766 8429 Email: sitholenl@mpg.gov.za
Mr. David Mahlobo	Department of Co-operative Governance and Traditional Affairs	Private Bag X11304 Nelspruit 1200	Tel:013 766 6087/6675 Cell:082 338 9881 Fax: 013 766 8441/2 Email: MahloboD@mpg.gov.za
Mr. ST Sibuyi	Department of Community Safety, Security and Liaison	Private Bag X11269 Nelspruit 1200	Tel: 013 766 4600 Fax: 013 766 8422 Email:phiwe@mpg.gov.za
Ms. Mahlasedi Mhlabane	Department of Education	Private Bag X11341 Nelspruit 1200	Tel: 013 766 5000 Email:p.moosa@education.mpu.gov.za Fax: 013 766 5577
Mr M.R Mnisi	Department of Health and Social Development	Private Bag X11285 Nelspruit 1200	Tel: 013 766 3429/30/28 Fax: 013 766 3458 Email:florencekh@social.mpu.gov.za
Mr. David Dube / Mr. S. Mstweni	Department of Human Settlements	Private Bag X11328 Nelspruit 1200	Tel: 013 766 6233 Fax: 013 766 8430 Email:APohl@mpg.gov.za
Mr. Kgopana Mathew Mohlasedi	Department of Public Works, Roads and Transport	Private Bag X11310 Nelspruit 1200	Tel: 013 766 6978/9 Fax: 013 766 8449 Email: kmohlasedi@mpg.gov.za
Mr. Guma	Department of Water Affairs, Mpumalanga Regional Office	Private Bag X11259 Nelspruit 1200	Tel: (013) 759 7310 Fax: (013) 759 7525 Email:guma@dwa.gov.za
Linda Tshabalala	Lekwa Local Municipality	PO Box 66 Standerton 2430	
Mr. Jaco	Lekwa Local	PO Box 66	

Prinsloo	Municipality	Standerton 2430	
Executive Management: Co-operative Services: Mr. N.L. Maimela	Lekwa Local Municipality	PO Box 66 Standerton 2430	
Seppie Claassen	Lekwa Local Municipality	PO Box 66 Standerton 2430	
Mr. Fanie Peens	Lekwa Local Municipality	PO Box 66 Standerton 2430	
Cllr. Mandlenkosi Tshabalala	Lekwa Local Municipality - Ward 9	PO Box 66 Standerton 2430	Tel: 017 712 9600
Mr. T.D. Hlanyane	Gert Sibande District Municipality	PO Box 1748 Ermelo 2350	
Florah Mamabola / Renetta Roets	Department of Water Affairs		Tel: 012 392 1352 Fax: 012 392 1359 Email: RoetsR@dwa.gov.za
Mr. Phillip Hine	South African Heritage Resources Agency (SAHRA)	PO Box 4637 Cape Town 8000	Tel:021 462 4502 Fax: 021 462 4509 Email:phine@sahra.org.za
Mr. Tendo Ramagoma	National Heritage Council (NHC)	PO Box 74097 Lynnwood Ridge Pretoria 0040	Tel:013 932 2061 Fax:086 212 1220 Email:P.Ramagoma@nhc.org.za
Utandi Rhapo	Adjacent land owner – 21 Magnolia Street		
A. Smith	Adjacent land owner -19 Magnolia Street	PO Box 3618 Standerton 2430	
Nomgqibelo	Adjacent land owner		

Martha Robeel	- 3 Viking Street		
Mietta Hlatshwayo	Adjacent land Owner - 33 Magnolia Street		
Tshepo Stephen Mokoena	Adjacent land Owner - 5 Viking Street		
D. Labuschagne	Adjacent land Owner - 10 Prevet Street	PO Box 426 Standerton 2430	Email: deonlabuschagne@eskom.co.za
E.S. Saayman	Adjacent land Owner -8 Prevet Street	PO Box 1981 Standerton 2430	Email: bloekombloekoem@vodamail.co.za
C.E Klopper	Adjacent land Owner - 4 Prevet Street	PO Box 1683 Standerton 2430	Tel: 017 714 0481
	Adjacent land Owner -5 Prevet Street		
	Adjacent land Owner -25 Magnolia Street		
	Adjacent land Owner - 3 Magnolia Street		
	Adjacent land Owner - 17 Magnolia Street		
	Adjacent land Owner- 35 Magnolia Street		
	Adjacent land Owner -12 Prevet Street		
	Adjacent land Owner -7 \Prevet Street		
	Adjacent land Owner -3 Prevet Street		
	Adjacent land Owner - 9 Prevet Street		
	Adjacent land Owner		

	-11 Prevet Street		
	Adjacent land Owner -6 Prevet Street		

Shangoni sent registered letters to the Departments and Organs of State containing a background information document (BID) and map showing the location of the site and a stakeholder registration form. Notification letters were hand delivered to adjacent land owners. Figures 26 and 27 provide an example of the letters sent out to Departments, Organs of State and potential I&APs. Figures 28 and 29 provide proof that notification letters were sent to Departments and Organs of State. Proof that notification letters were delivered to adjacent land owners is attached under Appendix E.

Table 6 provides a list of I&APs that registered and were added to the database of I&APs during the PPP.

Table 6: Registered I&APs.

Name	Farm/Association	Postal Address	Contact details
Mr. Tendo Ramagoma	National Heritage Council (NHC)	PO Box 74097 Lynnwood Ridge Pretoria 0040	Tel:013 932 2061 Fax:086 212 1220 Email:P.Ramagoma@nhc.org.za
Mr. Phillip Hine	South African Heritage Resources Agency (SAHRA)	PO Box 4637 Cape Town 8000	Tel:021 462 4502 Fax: 021 462 4509 Email:phine@sahra.org.za
Phiwe Mhlongo	Mpumalanga Department of Community Safety, Security and Liaison	Private Bag X11269 Nelspruit 1200	Tel: 013 766 4600 Fax: 013 766 8422 Email:phiwe@mpg.gov.za
C.H.P. Kleynhans	Mpumalanga Department of Agriculture, Rural Development and Land Administration	Private Bag X11219 Nelspruit 1200	Tel: 013 766 6067/8 Fax: 013 766 8295



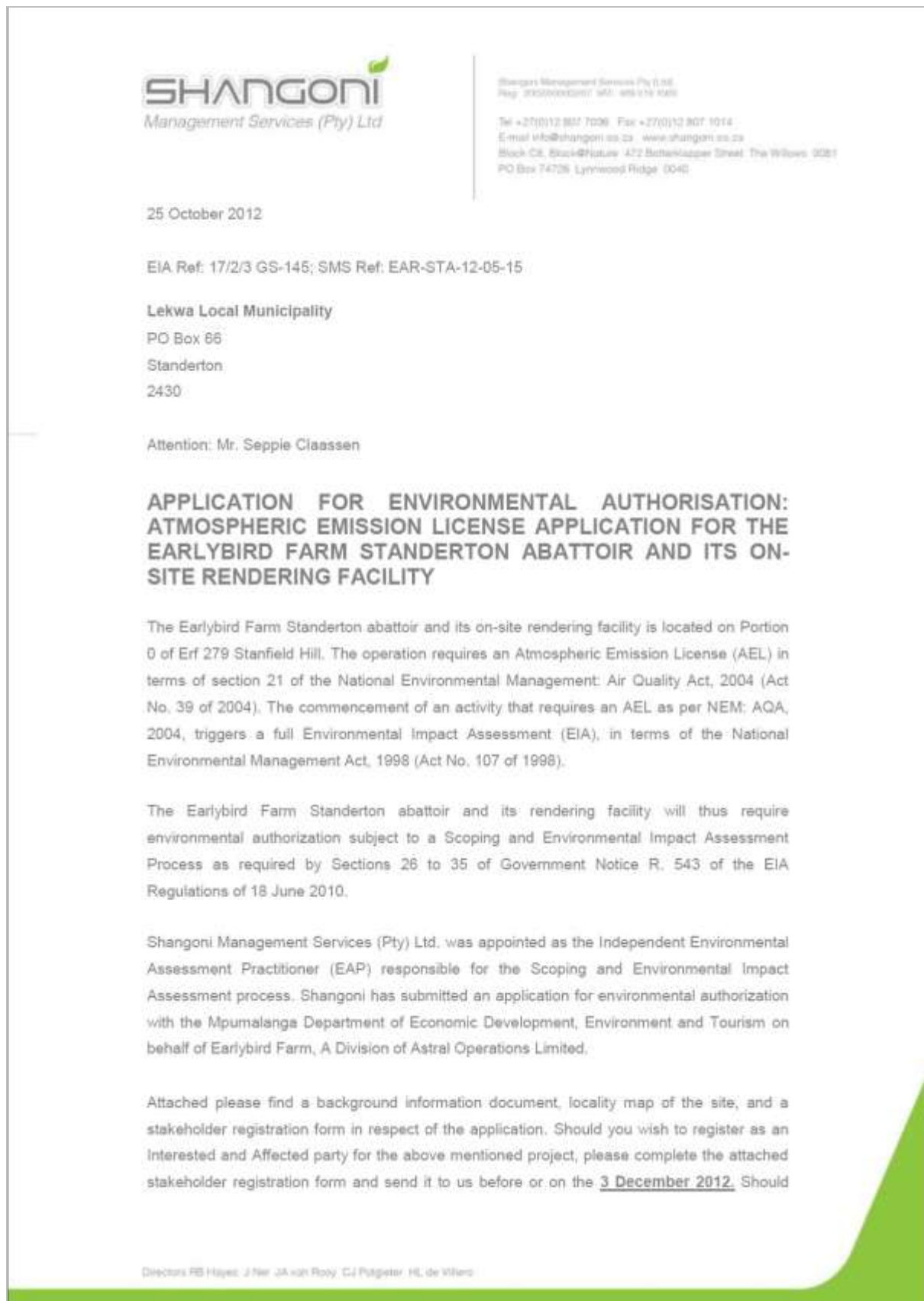


Figure 26: Example of the notification letters sent (page 1)

you wish to not be part of this EIA process, it will be appreciated if we could receive a written confirmation thereof to enable us to continue with the application.

Please do not hesitate to contact the undersigned should you require any additional information:

Contact Details: Shangoni Management Services

Miss Lizette Crous

E-mail: lizette@shangoni.co.za

Cell: 071 673 3355

Fax 2 E-mail: 086 643 5360

Fax: 012 807 1014

Online Participation: Go to www.shangoni.co.za and click on Public Documents.

Yours Faithfully,



Miss Lizette Crous
Environmental Assessment Practitioner

Figure 27: Example of the notification letters sent (page 2)




List of REGISTERED LETTERS

Lys van GEREGISTREERDE BRIEWE

(with an insurance option/met 'n versekeringsopsie)

Full tracking and tracing/Volledige volg en spoor



Post Office


Name and address of sender:
 Naam en adres van afsender: Shangoni Management Services
P.O. Box 74726, Lynnwood Ridge, 2042
Lizette Craus

Enquiries/Navrae
 Toll-free number
 Tolvry nommer
0800 111 502

No	Name and address of addressee Naam en adres van geadresseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-kliëntafskrif
1	Lekwa Local Municipality PO Box 66 Standerton 2430 Attention: Mr. Seppie Claassen					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 075 ZA CUSTOMER COPY 301020R
2	Lekwa Local Municipality PO Box 66 Standerton 2430 Mr. Jaco Prinsloo					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 058 ZA CUSTOMER COPY 301020R
3	Lekwa Local Municipality - Ward 9 PO Box 66 Standerton 2430 Mr. Mandlenko Mphahlele					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 035 ZA CUSTOMER COPY 301020R
4	Cient Sibente District Municipality PO Box 1346 Emma 2350 Mr. T.D. Mlomoane					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 044 ZA CUSTOMER COPY 301020R
5	Lekwa Local Municipality PO Box 66 Standerton 2430 Executive Management Co-Operative Services					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 013 ZA CUSTOMER COPY 301020R
6	Mamabana Department of Education Private Bag x 11341 Nelspruit 1200 Ms. Mphahlele Mphahlele					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 027 ZA CUSTOMER COPY 301020R
7	Department of Water Affairs Private Bag x 995 Pretoria 0001 Ms. Elsie Mmamabola					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 549 995 ZA CUSTOMER COPY 301020R
8	Mamabana Department of Health and Social Dev Private Bag x 11385 Nelspruit 1200 Mr MR Masi					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 550 000 ZA CUSTOMER COPY 301020R
9	Mamabana Department of Human Settlements Private Bag x 11325 Nelspruit 1200 Mr David Dize					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 549 593 ZA CUSTOMER COPY 301020R
10	Department of Water Affairs Mamabana Regional Office Private Bag x 11354 Nelspruit 1200 Alicia Masi					REGISTERED LETTER (with a domestic insurance option) Skema: 0800 111 502 www.sapo.co.za RD 716 549 602 ZA CUSTOMER COPY 301020R
Number of letters posted Getal briewe gepos		Total Totaal		R	R	R
Signature of client Handtekening van kliënt				R	R	R
Signature of accepting officer Handtekening van aanneembeampte				R	R	R

The value of the contents of these letters is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100,00. No compensation is payable without documentary proof. Optional insurance of up to R200,00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie briewe is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100,00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering van tot R2 000,00 is beskikbaar en is slegs op binnelandse gerogistreerde briewe van toepassing.



Datumstempel

Figure 28: Proof of postage of notification letters (page 1)


List of REGISTERED LETTERS

Lys van GEREGISTREERDE BRIEWE

(with an insurance option/met 'n versekeringsopsie)

Full tracking and tracing/Volledige volg en spoor

Name and address of sender:
 Naam en adres van afsender: Shangoni Management Services
PO Box 74124, Lynnwood Ridge, 0040
Lizette Craus



Enquiries/Navrae
Toll-free number
Tolvry nommer
0800 111 502

No	Name and address of addressee Naam en adres van geadresseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Postgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-kliëntabskif
1	Mpumalanga Department of Public Works, Roads and Transport Private Bag X11230 Nelspruit 1200 Mr Kgopane Mthunzi Mthunzi					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 616 ZA CUSTOMER COPY 3010288
2	SA Heritage Resumes Agency (SAHRA) PO Box 4457 Cape town 8000 Mr Phillip Hine					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 620 ZA CUSTOMER COPY 3010288
3	National Heritage Council (NHC) PO Box 74097 Lynnwood Ridge 0040 Mr Tendo Ramagana					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 987 ZA CUSTOMER COPY 3010288
4	Department of Water Affairs, Mpumalanga Regional Office Private Bag X 11254 Nelspruit 1200 Mr Gupta					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 973 ZA CUSTOMER COPY 3010288
5	DEPT of Safety Security and Recreation Private Bag X11209 Nelspruit 1200 Mr ST Sibaya					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 960 ZA CUSTOMER COPY 3010288
6	Mpumalanga DEPT of Agriculture, Rural Dev and Land Affairs Private Bag X11219 Nelspruit 1200 Ms Ntshane Sithole					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 942 ZA CUSTOMER COPY 3010288
7	DEPT of Cooperative Governance and Traditional Affairs Private Bag X11304 Nelspruit 1200 Mr Brand Mahlabo					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 939 ZA CUSTOMER COPY 3010288
8	Letaba local Municipality Health and Social Development PO Box 66 Standerton 2430 Mr Fanie Pooze					REGISTERED LETTER (with a domestic insurance option) ShenCall 0800 111 502 www.sps.co.za RD 716 549 956 ZA CUSTOMER COPY 3010288
9						
10						
Total		R	R	R	R	

Number of letters posted / Getal briewe gepos: 8

Signature of client / Handtekening van klient: [Signature]

Signature of accepting officer / Handtekening van aanneembeampte: _____

The value of the contents of these letters is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100,00. No compensation is payable without documentary proof. Optional insurance of up to R200,00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie briewe is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100,00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering van tot R2 000,00 is beskikbaar en is slegs op binne landse geregistreerde briewe van toepassing.

Date stamp




Figure 29: Proof of postage of notification letters (page 2).

4.5.3 Comments obtained during the public participation phase

Table 7: Comments received.

RAISED BY	DATE	ISSUE / COMMENT / CONCERN
National Heritage Council – Mr. Thendo Ramagoma	25-10-2012	<p>Received with thanks.</p> <p>Here is my preliminary reply to this and many other applications that you had forwarded us for which we could not respond at the time. On the phase of it, we may not be the right authority from whom you should solicit comment. I suspect the South African Heritage Authority (SAHRA) established in terms of the National Heritage Resources (NHR) Act, 1999 (Act No. 25 of 1999) based in Cape Town with regional officers and/or Provincial Heritage Authority within your area of jurisdiction (Province) in which the property for which the activity requiring environmental or heritage impact assessment may be required and is situated is the most relevant authority to grant the necessary permit(s). SAHRA deals with tangible heritage in terms of the NHR Act whereas as NHC, we deal with intangible heritage as per our mandate outlined in the National Heritage Council Act, 1999 (Act No. 11 of 1999). Please apply through hereto and see if SAHRA is not your best bet in the circumstances. However, should you still need our assistance and/or advice, we would be happy to proffer same.</p> <p>Trusting the above does assist somehow albeit from a legal advisory point of view.</p>
Mpumalanga Department of Community Safety, Security and Liaison – Phiwe Mhlongo	29-10-2012	<p>Our Department has no objection to the application on the basis that this is the other sister Departments that deal with such applications and not ours. In future kindly note that the addressee is Mr. S.T. Sibuyi.</p> <p>I hope that you find this in perfect order.</p>
SAHRA – Mr. Philip Hine	08-11-2012	<p>Case ID: 774</p> <p>ATMOSPHERE EMISSION LICENCE APPLICATION FOR THE EARLYBIRD FARM STANDERTON ABATTOIR</p>

		<p>AND IS ON SITE RENDERING FACILITY (EIA Ref: 17/2/3 GS-145; SMS Ref: EAR-STA-12-05-15)</p> <p>Thank you for your indication that development is to take place in this area.</p> <p>In terms of the National Heritage Resources Act (NHRA), no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is incumbent on the developer (or mine) to ensure that a Heritage Impact Assessment is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.</p> <p>Since this application will not have an impact on any heritage resources no further action is required terms of section 38 of the National Heritage Resources Act (Act 25 of 1999).</p> <p>Should you have any further queries, please contact the designated official using the case number quoted above in the case header.</p>
<p>Mpumalanga Department of Agriculture, Rural Development and Land Administration C.H.P. Kleynhans</p>	<p>03-05-2013</p>	<p>IN REGARD TO: EARLYBIRD FARM STANDERTON – PROPOSED WASTE WATER TREATMENT WORKS-APPLICATION FOR ENVIRONMENTAL AUTHORISATION: ATMOSPHERIC EMISION LICENCE APPLICATION</p> <p>Your invitation dated 25 October 2012, to comment on the above-mentioned BID, received by this Department on 7 November 2012, refers.</p> <p>According to the Information provided by you, the operation at Earlybird Farm Standerton abattoir and its on-site rendering facility, situated on Portion 0 of Erf 279 Standfield Hill within Lekwa Local Municipality, requires an Atmospheric Management: Air Quality Act, 2004 (Act no.39 of 2004) and that this process requires a full EIA and environmental authorisation in terms of NEMA.</p>

		<p>The Mpumalanga Department of Agriculture, Rural Development and Land Administration hereby accept the invitation to participate in the process and therefore wish to register as an interested party (stakeholder).</p> <p>This department supports the proposed environmental authorisation and licensing processes under the National Environmental Management Act (Act 107 of 1998) (NEMA) for the operations at the abattoir and its on-site related facility. The requirements in terms of the NEMA will ensure that the proposed operation is done in an environmentally sustainable manner.</p> <p>However, in order to ensure that the abattoir operations are desirable in terms of the spatial development and land use planning considerations for the applicable municipal area, the exercising of the land use must also be subject to the obtaining of a municipal land use planning consent in terms of the provisions of the applicable provincial physical planning legislation and / or municipal land use scheme. Alternatively, proof that the subject property has the necessary land use rights must be provided.</p> <p>Please do not hesitate to contact this office if there are any further enquires.</p>
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4.5.4 EAP's responses to comments received

Table 8 EAP's responses to comments received.

RAISED BY	DATE	RESPONSE
National Heritage Council – Mr. Thendo Ramagoma	25-10-2012	<p>I hereby acknowledge receipt of your response to the Notice of Application for Environmental Authorisation for the Atmospheric Emission License Application for the Earlybird Farm Standerton abattoir and its on-site rendering facility (EIA Reference Number: 17/2/3 GS-145; SMS Reference Number: EAR-STA-12-05-15).</p> <p>We thank you for your inputs.</p>



Mpumalanga Department of Community Safety, Security and Liaison – Phiwe Mhlongo	29-10-2012	Your email received 29 October 2012 refers: We hereby confirm receipt of your comments on the application for environmental authorisation for the above mentioned project. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project. We thank you for your inputs.
SAHRA – Mr. Philip Hine	08-11-2012	Your letter dated 8 November 2012 refers: We hereby acknowledge receipt of your comments on the Application for Environmental Authorisation: Atmospheric Emission License application for the Earlybird Farm Standerton abattoir and its on-site rendering facility. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project. We thank you for your inputs.
Mpumalanga Department of Agriculture, Rural Development and Land Administration C.H.P. Kleynhans	03-05-2013	Your letter dated 17 April 2013: We hereby confirm receipt of your comments on the application for environmental authorisation for the above mentioned project. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project. We further confirm your registration as an interested and affected party for the project in question. You will receive correspondence regarding public participation opportunities as the process unfolds. The Earlybird Farm abattoir is currently in a process of applying for a land use change consent to change the zoning of the property from an Industrial 1 to Industrial 2 zoning. We thank you for your inputs.

4.5.5 Comments and Responses Report

Comments and concerns received from I&APs were incorporated into a Comments and Responses Report, which is given in Table 9 and under Appendix E.



Table 9: Comments and responses report.

RAISED BY	DATE	ISSUE / COMMENT / CONCERN	RESPONSE
National Heritage Council – Mr. Thendo Ramagoma	25-10-2012	<p>Received with thanks.</p> <p>Here is my preliminary reply to this and many other applications that you had forwarded us for which we could not respond at the time. On the phase of it, we may not be the right authority from whom you should solicit comment. I suspect the South African Heritage Authority (SAHRA) established in terms of the National Heritage Resources (NHR) Act, 1999 (Act No. 25 of 1999) based in Cape Town with regional officers and/or Provincial Heritage Authority within your area of jurisdiction (Province) in which the property for which the activity requiring environmental or heritage impact assessment may be required and is situated is the most relevant authority to grant the necessary permit(s). SAHRA deals with tangible heritage in terms of the NHR Act whereas as NHC, we deal with intangible heritage as per our mandate outlined in the National Heritage Council Act, 1999 (Act No. 11 of 1999). Please apply through hereto and see if SAHRA is not your best bet in the circumstances. However, should you still need our assistance and/or advice, we would be happy to proffer same.</p> <p>Trusting the above does assist somehow albeit from a legal</p>	<p>I hereby acknowledge receipt of your response to the Notice of Application for Environmental Authorisation for the Atmospheric Emission License Application for the Earlybird Farm Standerton abattoir and its on-site rendering facility (EIA Reference Number: 17/2/3 GS-145; SMS Reference Number: EAR-STA-12-05-15).</p> <p>We thank you for your inputs.</p>

		advisory point of view.	
Mpumalanga Department of Community Safety, Security and Liaison – Phiwe Mhlongo	29-10-2012	<p>Our Department has no objection to the application on the basis that this is the other sister Departments that deal with such applications and not ours. In future kindly note that the addressee is Mr. S.T. Sibuyi.</p> <p>I hope that you find this in perfect order.</p>	<p>Your email received 29 October 2012 refers: We hereby confirm receipt of your comments on the application for environmental authorisation for the above mentioned project. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project.</p> <p>We thank you for your inputs.</p>
SAHRA – Mr. Philip Hine	08-11-2012	<p>Case ID: 774</p> <p>ATMOSPHERE EMISSION LICENCE APPLICATION FOR THE EARLYBIRD FARM STANDERTON ABATTOIR AND IS ON SITE RENDERING FACILITY (EIA Ref: 17/2/3 GS-145; SMS Ref: EAR-STA-12-05-15)</p> <p>Thank you for your indication that development is to take place in this area.</p> <p>In terms of the National Heritage Resources Act (NHRA), no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is</p>	<p>Your letter dated 8 November 2012 refers: We hereby acknowledge receipt of your comments on the Application for Environmental Authorisation: Atmospheric Emission License application for the Earlybird Farm Standerton abattoir and its on-site rendering facility. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project.</p> <p>We thank you for your inputs.</p>

		<p>incumbent on the developer (or mine) to ensure that a Heritage Impact Assessment is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.</p> <p>Since this application will not have an impact on any heritage resources no further action is required terms of section 38 of the National Heritage Resources Act (Act 25 of 1999).</p> <p>Should you have any further queries, please contact the designated official using the case number quoted above in the case header.</p>	
<p>Mpumalanga Department of Agriculture, Rural Development and Land Administration C.H.P. Kleynhans</p>	<p>03-05- 2013</p>	<p>IN REGARD TO: EARLYBIRD FARM STANDERTON – PROPOSED WASTE WATER TREATMENT WORKS-APPLICATION FOR ENVIRONMENTAL AUTHORISATION: ATMOSPHERIC EMISION LICENCE APPLICATION</p> <p>Your invitation dated 25 October 2012, to comment on the above-mentioned BID, received by this Department on 7 November 2012, refers.</p> <p>According to the Information provided by you, the operation</p>	<p>Your letter dated 17 April 2013: We hereby confirm receipt of your comments on the application for environmental authorisation for the above mentioned project. Your comments will be included in the Scoping and Environmental Impact Assessment reports for this project.</p> <p>We further confirm your registration as an interested and affected party for the project in question. You will receive correspondence regarding public participation opportunities as the process unfolds.</p>

	<p>at Earlybird Farm Standerton abattoir and its on-site rendering facility, situated on Portion 0 of Erf 279 Standfield Hill within Lekwa Local Municipality, requires an Atmospheric Management: Air Quality Act, 2004 (Act no.39 of 2004) and that this process requires a full EIA and environmental authorisation in terms of NEMA.</p> <p>The Mpumalanga Department of Agriculture, Rural Development and Land Administration hereby accept the invitation to participate in the process and therefore wish to register as an interested party (stakeholder).</p> <p>This department supports the proposed environmental authorisation and licensing processes under the National Environmental Management Act (Act 107 of 1998) (NEMA) for the operations at the abattoir and its on-site related facility. The requirements in terms of the NEMA will ensure that the proposed operation is done in an environmentally sustainable manner.</p> <p>However, in order to ensure that the abattoir operations are desirable in terms of the spatial development and land use planning considerations for the applicable municipal area, the exercising of the land use must also be subject to the obtaining of a municipal land use planning consent in terms of the provisions of the applicable provincial physical</p>	<p>The Earlybird Farm abattoir is currently in a process of applying for a land use change consent to change the zoning of the property from an Industrial 1 to Industrial 2 zoning.</p> <p>We thank you for your inputs.</p>
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		<p>planning legislation and / or municipal land use scheme. Alternatively, proof that the subject property has the necessary land use rights must be provided.</p> <p>Please do not hesitate to contact this office if there are any further enquires.</p>	
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4.5.6 Registering Stakeholders

All key stakeholders were registered and will receive this draft Scoping Report.

4.5.7 Minutes of public meetings

No public meetings were held during the Public Participation Phase.

4.5.8 Issuing I&APs and Stakeholders with a Draft Scoping Report

This draft Scoping Report will be sent to all Departments and Organs of State as well as all registered I&APs in order to obtain their comments. The report will also be submitted to the Mpumalanga Department of Economic Development, Environment and Tourism for review.

4.5.9 Press Notices

In accordance with the National Environmental Management Act (NEMA) 1998, (Act No. 107 of 1998) and the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), a notice was placed in the Beeld newspaper on the 30th of October 2012 and the Standerton Advertiser newspaper on the 2nd of November 2013. The press notices are shown below.

Press notices are crucial to create awareness of the project and to reach a broader range of I&APs.



The image displays a grid of newspaper advertisements for infrastructure planning services. The primary branding is for 'MAXIM infrastructure planning', which is repeated across multiple columns. Each advertisement typically includes a logo, a headline, and a block of text describing the services offered, such as 'Infrastructure Planning', 'Site Assessment', and 'Environmental Impact Assessment'. Some ads also feature contact information like phone numbers and email addresses. The layout is organized into several columns, with each ad occupying a specific rectangular space. The overall appearance is that of a professional directory or a collection of promotional notices for a specific industry.

Figure 30: Newspaper advertisement placed in the Beeld.



2 November 2012 *Standerton Advertiser - Skole* 11

Stannies-tennis is op dreef

Laerskool Standerton se dogters eerste tennispan het inlans aan die laaste rindspele deelgeneem.

Die dogters het teen Laerskool CE Swart van Middelburg en Laerskool Nelspruit meeding.

Die spanne het in die enkelspel- en dubbelspelewedstryde teen mekaar te staan gekom en die skool met die hoogste totaal het gewen. Die eerste span, tudat hulle

Gert Sibande winners was, het deurgedring en derde in Mpumalanga getindig. "Die dogters het hul goeie van hul tank gekry," het ms. Surina Dippenaar, tennisorganiseerder, gesê.

Laerskool Standerton en Laerskool Nelspruit was gelyk.

Laerskool Nelspruit het Stannies met 'n punt geklop in die rindspele en hulle was saaswinners.



Voor is Carina Visagio, Anushka Mynhardt, Pamela van der Merwe en Tsaané Oberholzer. Agter is ms. Surina Dippenaar (tennis-organiseerder).

VACANCY

VAKANTE BETREKKING
HOÛRSKOOI STANDERTON
BL-goe beskikbaar:
• Vak 1: Landbougeografie Gr.10 & 11.
• Vak 2: Tegnologie Gr. 8 en 9.
• Ondergraad: Afrikaans en Engels
Aanvangdatum: Januarie 2013
Koophuiskommoditeite beskikbaar.
CV na:
hpotrus@ho-standerton.co.za of
017 712 8808 (Faks)
Sluitingsdatum: 12:00 op 2012/11/09
Navrae: 082 8577 302



We urgently require the following

CODE 10 DRIVERS around the Standerton area
I With POP

Please fax/e-mail your CV to:
(017) 834 1170
recption@bathusi.co.za



FRANCHISE OPPORTUNITY

Total cost is dependent on the size of the outlet –
from R950k excl VAT.
Cash portion required is 40% of the total costs.

Contact:
Dewald 079 888 0011 / dewald@scootersjhb.co.za



**NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION,
ATMOSPHERIC EMISSION LICENCE**

Notice is hereby given that an application for environmental authorisation in terms of the EIA Regulations of 2010 (Regulations in terms of chapter 5 of the National Environmental Management Act of 1998, as amended) for the purpose of obtaining an Atmospheric Emission Licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), has been lodged with the Mpumalanga Department of Economic Development, Environment and Tourism. The Atmospheric Emission Licence application will be submitted to the Gert Sibande District Municipality.

Ref. Number: 17/2/3 GS-145

Applicant: Earlybird Farm, A division of Astral Operations Limited

Project name: Atmospheric emission licence application for the Earlybird Farm Standerton abattoir and its on-site rendering facility.

Project location: Portion 6 of Erf 279, Stanfield Hill, Standerton, Mpumalanga.

Project Description: The following components will form part of the atmospheric emission licence application for the abattoir and rendering facility:

- Air quality assessment
- Risk assessment (RA)
- Atmospheric emission licence application together with a full Scoping and Environmental Impact Assessment
- Atmospheric emission management plan
- Odour management plan

Activities applied for:
National Environmental Management Act, 1998 (Act No. 107 of 1998):
Listing Notice 2 R, 545, activity 26: Commencing of an activity, which requires an atmospheric emission licence in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), except where such commencement requires a Basic assessment in terms of Notice of No. 544 of 2010.

National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
Category 10: Animal matter processing: Processes for the rendering, cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption.

Invitation to participate:
Should you wish to be included in the register of interested and Affected Parties, comment on this application or inform us of any other I&APs and/or organ of state who should be notified, please submit your name, contact information, and interest in the matter in writing to the above address not later than 2 DECEMBER 2012.

Independent Environmental Assessment Practitioner:
Shangoni Management Services (Pty) Ltd,
PO Box 74728, Lynnwood Ridge, Pretoria, 004
Contact person: Miss. L. Grous

Tel: (012) 807 7038, Cell: 071 873 3355, Fax: (012) 807 1014, Fax to E-mail: 086 643 5380,
E-mail: info@shangoni.co.za. For online Participation go to www.shangoni.co.za and click on Public Documents.

SHANGONI

FRESH PERSPECTIVES

Our diversity makes a world of difference.

CODIFIER, SUPPLY CHAIN, KUMBA IRON ORE, KOLOHOLA MINE, NORTHERN CAPE

Kumba Iron Ore is a world leader in the mining and supply of the highest quality iron ore to the global steel industry. With hematite reserves of more than a billion tonnes, we're a growing South African company and the fourth largest supplier of iron ore in the world. A part of Anglo American, we are looking to build the leading global mining company.

In this role, you will accurately maintain and update the supply chain and materials technical specifications database to ensure the correct spending per commodity group as well as source the most suitable suppliers or manufacturers to ensure the best quality and service. Adherence to environmental specifications and Health and Safety standards is important.

To be considered, you must be a qualified Artisan with a recognised Trade Test and I&O qualification including more than 2 years' artisan experience. OR be in possession of a National Diploma (Technical). Sound knowledge of spares parts and consumables as well as SAP System MM, MDM and Link One, are imperative, as is a valid Code 08 driver's licence, and you will be required to pass a medical fitness examination. (You may be subjected to physical testing when undertaking the Medical Fitness Certificate.) Good fault-finding abilities, problem-solving skills and the ability to read and understand technical drawings and specifications will come in handy. Ref: 704067

Improve your career prospects with Kumba Iron Ore Ltd. Applicants can apply online via the source at www.angloamerican.com. Follow the link to: Careers/Current vacancies/Job search, enter the above reference number/job title and continue, before 9 November 2012.

Appointment will be made in line with Employment Equity considerations.

If you do not receive feedback from us within 6 weeks of the closing date, please consider your application unsuccessful.

 **Real Mining. Real People. Real Difference.**

Figure 31: Newspaper advertisement placed in the Standerton Advertiser.

4.5.10 Placement of Public Notices

The site notices of A2 sizes were placed on the perimeter fence surrounding the Earlybird Farm Standerton, as well as on other strategic places in the surrounding area (Refer to Figure 32 to 36). Wording for the site notices is given as Figure 37.



Figure 32: Location of the site notices



Figure 33: Notice 1





Figure 34: Notice 1 (zoomed in)



Figure 35: Notice 2



Figure 36: Notice 3



**EARLYBIRD FARM, A DIVISION OF ASTRAL OPERATIONS LIMITED
PUBLIC NOTICE OF APPLICATION APPLICATION FOR ENVIRONMENTAL
AUTHORISATION, ATMOSPHERIC EMISSION LICENSE**

Notice is hereby given that an application for environmental authorisation in terms of the EIA Regulations of 2010 (Regulations in terms of Chapter 5 of the National Environmental Management Act of 1998, as amended) for the purpose of obtaining an Atmospheric Emission License in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), has been lodged with the Mpumalanga Department of Economic Development, Environment and Tourism. The Atmospheric Emission License application will be submitted to the Gert Sibande District Municipality.

Ref. Number: 17/2/3 GS-145

Applicant: Earlybird Farm, A Division of Astral Operations Limited

Project Name: Atmospheric emission license application for the Earlybird Farm Standerton abattoir and its on-site rendering facility.

Project Location: Portion 0 of Erf 279 Stanfield Hill, Standerton, Mpumalanga.

Project Description: The following components will form part of the atmospheric emission license application for the abattoir and rendering facility:

- Air quality assessment
- Risk assessment (RA)
- Atmospheric emission license application together with a full Scoping and Environmental Impact Assessment
- Atmospheric emission management plan
- Odour management plan

Activities applied for:

National Environmental Management Act, 1998 (Act No. 107 of 1998):

Listing Notice 2, R. 545, activity 26: 'Commencing of an activity, which requires an atmospheric emission license in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), except where such commencement requires a basic assessment in terms of Notice of No. 544 of 2010'.

National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004):

Category 10: Animal matter processing: 'Processes for the rendering cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption'.

Invitation to participate:

Should you wish to be included in the register of Interested and Affected Parties, comment on this application or inform us of any other I&APs and/or organisation and/or organ of state who should be notified, please submit your name, contact information, and interest in the matter in writing to the above address not later than **23 November 2012**.

Independent Environmental Assessment Practitioner:

Shangoni Management Services (Pty) Ltd.
PO Box 74726, Lynnwood Ridge, Pretoria, 0040.
Contact Person: Miss. L. Crous.

Tel: (012) 807 7036, Cell: 071 673 3355, Fax: (012) 807 1014, Fax to E-mail: 086 643 5360,
E-mail: lizette@shangoni.co.za, For Online Participation go to www.shangoni.co.za and click on Public Participation.



**EARLYBIRD FARM, A DIVISION OF ASTRAL OPERATIONS LIMITED
PUBLIEKE KENNISGEWING TER AANSOEK VIR OMGEWINGSMAGTIGING,
ATMOSFERIESE EMISSIE LIENSIE**

Belanghebbende en Geaffekteerde partye word hiermee in kennis gestel dat 'n aansoek vir omgewingsmagtiging ingevolge die Omgewings Impak Studie Regulasies van 18 Junie 2010, in terme van Hoofstuk 5 van die Nasionale Omgewings Bestuur Wet van 1998, soos gewysig, ingedien is by die Mpumalanga Departement van Ekonomiese Ontwikkeling, Omgewing en Toerisme om 'n Atmosferiese emissie lisensie, volgens die Nasionale Omgewings Bestuur: Lug Kwaliteit Wet, 2004 (Wet Nr. 39 of 2004), te verkry. Die Atmosferiese emissie lisensie aansoek sal by die Gert Sibande Distriksmunisipaliteit ingedien word.

Verwysingsnommer: 17/2/3 GS-145

Applikant: Earlybird Farm, A Division of Astral Operations Limited

Projek naam: Atmosferiese emissie lisensie aansoek vir die Earlybird Farm Standerton Abattoir "rendering" fasiliteit.

Ligging: Gedeelte 0 van Erf 279 Stanfield Hill, Standerton, Mpumalanga.

Beskrywing van aktiwiteit:

- Lug kwaliteit evaluering
- Risikobepaling
- Atmosferiese emissie lisensie aansoek tesame met 'n volle Bestekopname/Omvangsbepaling en Omgewingsimpakstudie
- Atmosferiese emissie bestuur plan
- Reuk bestuur plan

Aktiwiteite aansoek gedoen het vir:

Wet op Nasionale Omgewingsbestuur, 1998 (Wet Nr. 107 van 1998):

Listing Kennisgewing 2, R. 545, aktiwiteit 26: 'die aanvang van 'n aktiwiteit, wat vereis dat 'n atmosferiese lisensie in terme van artikel 21 van die Wet op Nasionale Omgewingsbestuur: Lug Kwaliteit Wet, 2004 (Wet Nr. 39 van 2004), behalwe waar sodanige inwerkingtreding vereis dat 'n basiese assessering in terme van 'n kennisgewing van No 544 van 2010 sal geld'.

National Environmental Management: Air Quality Act, 2004 (Wet Nr. 39 van 2004):

volgens GK 248 van 31 Maart 2010 in terme van die Wet op Nasionale Omgewingsbestuur: Lug Kwaliteit Wet, 2004 (Wet Nr. 39 van 2004): gelyste aktiwiteit Nr 10: Dierlike materiaal verwerking; Prosesse vir die lewering, kook, droog, uitdroog, vertering, verdamping of proteïen-konsentrasie van enige dierafval wat nie bedoel is vir menslike gebruik nie; Alle installasies vir die hantering van meer as 1 ton van grondstowwe per dag.

Publieke Deelname Uitnodiging:

Vir enige kommentaar en/of navrae, of indien u as belanghebbende en/of geaffekteerde party wil registreer of ons wil inlig van enige ander partye en/of organisasie en/of staatsinstelling wat in kennis gestel moet word, kan u gerus vir Lizette Crous kontak by die ondergenoemde kontakbesonderhede, nie later as **23 November 2012** nie.

Omgewingskonsultante:

Shangoni Management Services (Pty) Ltd	
PO Box 74726	Tel: (012) 807 7036
Lynnwood Ridge	Faks: (012) 807 1014
Pretoria	Set: +27 71 673 3355
0040	E-pos: lizette@shangoni.co.za



Figure 37: Wording of the site notice

5. NEED AND DESIRABILITY FOR THE ACTIVITY

5.1 Applicant

Rendering converts highly-perishable poultry waste that cannot be consumed by humans, into a valuable commodity (COWI Consulting Engineers and Planners AS, 2000) that can be used in the production of animal feeds. This decreases the amount of waste that needs to be disposed of at local landfill/hazardous waste disposal sites and also eliminates the possibility of decomposing waste polluting the soil, surface- and ground- water of the area.

By licensing the abattoir and its on-site rendering facility, the Earlybird Farm Standerton operation will reduce its current legal liability. Conditions subject to the licensing will ensure maintenance of facilities and monitoring of emissions from relevant facilities. This will in effect result in a more accurate representation of the operations impact on ambient air quality and promote early problem identification and corrective action implementation.

5.2 Local Community

Rendering decreases the amount of waste that needs to be disposed of at local landfill/hazardous waste disposal sites, therefore reducing the possibility of decomposing waste polluting the soil, surface- and ground- water of the area as well as public health problems associated with improper disposal.

The following special arrangement applies to the licensing of the abattoir and its on-site rendering facility at the Earlybird Farm Standerton operation;

- Best practise measures intended to minimise or avoid offensive odours must be implemented by all installations. These measures must be documented to the satisfaction of the licensing authority.



6. IDENTIFIED ALTERNATIVES

Alternatives are one of the most critical elements of the environmental assessment process. It provides a framework for sound decision making based on the principles of sustainable development. Alternatives should be practicable, feasible, relevant, reasonable and viable. The different categories of alternatives, not all of which are applicable for each project, include; activity-, location-, process-, demand-, scheduling-, input, routing-, site layout-, scale- and design alternative. The alternatives to be evaluated should be considered along with the “no-go” alternative.

6.1 No-Go Option

The potential impact of licensing the listed activity on environmental and socio-economic attributes identified during the assessment phase is evaluated against the potential impact of the no-go option (the option wherein the listed activity is not licensed) on the same attributes. The summary of this assessment is provided in Table 10 below.

Table 10: Development vs. No-Go Option.

Attribute	Development Option	No-go Option 2
Natural environment		
Air Pollution	1	-1
Noise Pollution	0	0
Soil Pollution	0	0
Water Quality	0	0
Water Quantity	0	0
Fauna and Flora	0	0
Sensitive Environments/ Highveld priority Area	1	0
Economical environment		
Process efficiency	1	0
National and or regional job creation	1	0
Social environment		
Employment opportunities and skills development	0	0
Aesthetics (Odour)	1	0
Impact on property values	1	0
Development/Implementation		
Technology	1	0
Infrastructure	0	0

Safety and security	0	0
Total	8	-3

Note: Positive Impact = 1, No Impact = 0 and Negative Impact = -1

The positive environmental and social impacts outweigh the negative impacts and the consideration of the “no-go” option can be justifiably dismissed as a sustainable alternative.

6.2 Alternatives Best Practice Measures

6.2.1 Alternative odour removal technologies

During the Atmospheric Impact Assessment, ozone oxidation and bio-filtration systems have been identified as best practice odour removal technologies. Following are descriptions of each technology and their advantages and disadvantages.

Ozone oxidation system

Ozone (O₃), contains three atoms of oxygen, the third making it extremely reactive. This atom readily attaches itself to Volatile Organic Compounds (VOC), changing their chemical structure and eventually destroying the odour, they cause.

Advantages:

- Ozone is manufactured on-site so there is no need to buy chemical additives;
- It works in conjunction with existing ventilation or containment systems;
- Ozone is the fastest-acting commercial oxidizer available; and
- Ozone will not oxidize ammonia. However it will treat (disinfect or kill) micro-organisms that produce ammonia.

Disadvantages:

- Considered an expensive treatment, as it has a high capital cost, which must be maintained on site; and
- Ozone is a toxic gas. No ozone installation should be considered without following the recommendation of organisations that are familiar with and experienced in the operation of such technology.

Bio-filtration system

A Bio-filtration system uses biodegradation, the chemical dissolution of materials by bacteria or other biological means, to remove odorous gases from a contaminated air/gas stream.

Advantages:

- Good efficiency can be achieved;



- High odour removal possible; and
- Low operating cost can be achieved.

Disadvantages

- Systems may require a period of gas conditioning and the bacteria in the microbiological media may be sensitive to changes in inlet conditions;
- Uniformity of air flow through the system is very important to bio-filter performance. Channelling can result in a reduced residence time through the system, which reduces the odour removal efficiency; and
- Bio-filtration systems have relatively large footprints.



7. IDENTIFICATION OF ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This part of the document focuses on the identification of the major potential impacts the listed activity, in terms of Government Notice No. 248 as contemplated in Section 21(1)(a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM: AQA) and other emission sources associated with the Earlybird Farm Standerton operation may have on the surrounding environment. It indicates the major impacts that these activities have on the environmental components associated with the site, as required in terms of Regulation 28 (g) of R.543 of the EIA Regulations, 2010, under the NEMA, 1998. Furthermore, it describes the processes to be undertaken to ensure that the identified impacts are mitigated.

7.1 Activities identified

All the actions, activities and/or processes relevant to the listed activity, in terms of NEM: AQA and other emission sources associated with the Earlybird Farm Standerton operation that may cause pollution or environmental degradation, if not suitably mitigated or managed, have been identified and categorised. The relevant activities, listed per life cycle phase, are given below.

7.1.1 Planning, Licensing and Administration phase

- Examine alternatives;
- Identify and initiate the development of appropriate maintenance, monitoring and management plans; and
- Identify and initiate appropriate specialist studies.

7.1.2 Operation phase

- Operation of the rendering facility;
- Operation of the three boilers
- Maintenance of the of the rendering facility and its emission control technology;
- Maintenance of the of the three boilers; and
- Monitoring of emissions.



7.1.3 Closure

It is unlikely that the Earlybird Farm Standerton operation (abattoir and rendering facility) will be decommissioned and closed in the foreseeable future. However, if closure is considered, an extensive closure and rehabilitation plan will be drafted and submitted to the Department prior to the event.

7.2 Impact Assessment in Scoping Phase

For the purpose of the Scoping Phase it is required by Regulation 28 (g) of R.543 of the EIA Regulations, 2010 that major potential impacts on the surrounding environment, as a result of the activities mentioned in section 7.1 of this document, are identified.

Identification of the major potential impacts has therefore been included as part of the requirements for the compilation of the Scoping Report. The prediction of the nature of each impact, the evaluation of each impact by rating its significance and the management and mitigation measures adopted to address each impact, will be assessed during the EIR using the criteria presented in section 8.1.3 – Methodology of assessing the environmental issues.

7.3 Impacts Identified

A number of potential impacts were identified within the draft Scoping study. These impacts are listed below.

7.3.1 Planning, Licensing and Administration phase

- Failing to identify suitable alternatives may lead to selecting the wrong emission abatement technology and result in ineffective emission reductions and/or equipment failure.
- The development of inadequate maintenance, monitoring and management plans, may lead to the inability to identify and rectify environmental aspects and potential impacts; and
- Failing to identify and initiate relevant specialist studies may result in false representation of cumulative impacts.

7.3.2 Operation

- Inadequate maintenance and management of the rendering facility and its emission abatement technology may lead to equipment failure and resulting in ambient air pollution.
- Inadequate maintenance and management of the three boilers may lead to equipment failure and resulting ambient air pollution.
- Inconsistent and incorrect point source emission monitoring may result in a false representation of the rendering facility's impact on the ambient air quality and delay problem identification and corrective action implementation;



- Inconsistent and incorrect water quality- and wastewater disposal monitoring may result in a false representation of the rendering facility's impact on the surrounding environment and delay problem identification and corrective action implementation;
- Surface- and groundwater contamination as a result of ineffective treatment and discharge of contaminated wastewater from the rendering facility.

7.3.3 Closure

It is unlikely that the Earlybird Farm Standerton operation (abattoir and rendering facility) will be decommissioned and closed in the foreseeable future. However, if closure is considered, an extensive closure and rehabilitation plan will be drafted and submitted to the Department prior to the event.

7.4 Process to ensure impacts are mitigated

Mitigation measures need to be identified to ensure that impacts from the activity are reduced as far as possible. The following mitigation objectives will be kept in mind while mitigation measures are identified:

- To find more environmentally sound ways of undertaking specific activities;
- To enhance any environmental and social benefits of a activity;
- To avoid, minimise or remedy negative environmental impacts; and
- To ensure that any residual negative environmental impacts are environmentally acceptable.

Identifying appropriate mitigation measures will be conducted in a hierarchal manner:

1. Preventative measures will be identified to avoid, where possible, negative impacts that may arise as a result of the activity;
2. Measures will be identified to minimise and/or reduce the negative impacts to "as low as practicable" levels; and
3. Measures will be identified to compensate or remedy residual negative impacts that are unavoidable and cannot be minimised or reduced any further (Department of Environmental Affairs, 2006).

Proposed mitigation measures will be communicated to the applicant for review. The applicant will comment on the feasibility and practicability of implementing the mitigation measures. The mitigation measures may be adjusted based on the applicant's comments.

7.5 Specialist Studies Identified

The following key specialist studies have been identified as part of the EIA

- Air Quality Impact Assessment.



8. PLAN OF STUDY FOR EIA

In this part of the document a description is given of the steps to be taken as part of the Environmental Impact Assessment process. This section is written in accordance with Regulation 28 of R. 543 of the EIA Regulations of 18 June 2010.

8.1 Tasks to be undertaken as part of the EIA process

An application for environmental authorisation in terms of the EIA Regulations of 2010 (Regulations in terms of chapter 5 of the National Environmental Management Act 1998, as amended) was lodged.

The Environmental Impact Assessment process will be conducted subsequent to the Scoping process and will be undertaken in accordance with the Regulation 31 of the EIA Regulations of 18 June 2010. The Environmental Impact Report (EIR) will include detailed information relating to the potential or anticipated impacts that may arise as a result of the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation.

The EIR and draft EMP in accordance with NEMA (1998) and as per the EIA Regulations R.543 of 18 June 2010, will include, but is not limited, to the following:

- Details of the Environmental Assessment Practitioner (EAP);
- Expertise of the EAP to carry out an EIA;
- A detailed description of the activity;
- A description of the property on which the activity is to be undertaken and the location of the activity on the property;
- A description of the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the activity;
- Details of the public participation process followed;
- A description of the need and desirability of the activity;
- A description of the identified alternatives to the activity, including advantages and disadvantages that the activity may have on the environment and the community that may be affected by the activity;
- An indication of the methodology used in determining the significance of potential environmental impacts;
- A description and comparative assessment of all alternatives identified during the environmental impact assessment process;
- A summary of the findings and recommendations of any specialist report or report on a specialised process (no specific requests have been received from the competent authorities to date);



- A description of all environmental issues that were identified during the environmental impact assessment process, an assessment of the significance of each issue and an indication of the extent to which the issue could be addressed by the adoption of mitigation measures;
- An assessment of each identified potentially significant impact, including cumulative impacts, the nature of the impact, the extent and duration of the impact, the probability of the impact occurring, the degree to which the impact can be reversed, the degree to which the impact may cause irreplaceable loss of resources, and the degree to which the impact can be mitigated;
- A description of any assumptions, uncertainties and gaps in knowledge;
- A reasoned opinion as to whether the activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation;
- An environmental impact statement;
- A draft environmental management programme containing the aspects contemplated in regulation, including, but not limited to, environmental management objectives and goals, mitigation measures and management of significant impacts, a description of persons responsible for mitigation implementation, description of time periods applicable to mitigation implementation, and monitoring and performance assessment;
- Inclusion of technical and supporting information;
- Copies of any specialist reports and reports on specialised processes complying with regulation;
- Any specific information that may be required by the competent authority; and
- Any other matters required in terms of sections 24(4) (a) and (b) of the Act.

Compilation of the EIR and draft EMP will be conducted according to the EIA Regulations of 18 June 2010 (R.543) as per NEMA, 1998, and will include, but is not limited to, the following:

- The compilation of the EIR as stipulated in Regulation 31 of R.543 (18 June 2010), as per NEMA, 1998;
- The draft EIR and EMP will be submitted to the applicant for input prior to its submission for public and competent authority comment;
- Public Participation will be conducted in accordance with the EIA Regulations of 18 June 2010 (R.543). This will include submission of the draft EIR and EMP to the competent authority and the public in order to obtain their comments for a period of 40 days [R543(56)];
- All comments, objections and/or representations received during the Public Participation Process will be included and addressed in the final EIR and this document will be finalised;
- The final EIR and draft EMP will be submitted to the client to obtain their inputs;
- Registered Interested and Affected Parties will be given an opportunity to comment on the final EIR as stipulated in R543 (56) (6). Their comments will be submitted directed to the competent authority and the EAP or applicant will be copied;
- The final EIR and draft EMP will be submitted to the competent authority for consideration. The competent authority will have 14 days to acknowledge receipt of the final EIR. Thereafter, the

competent authority has 60 days to consider the report and in writing accept the report, reject the report, or ask for additional information or amendments to the document [R.543(34)(2)]. Once the report has been accepted, the competent authority has 45 days to grant or refuse authorisation [R.543(35)(1)]; and

- Continued consultation with the relevant authority until issuing of the decision.

8.2 Stages at which the competent authority will be consulted

The stages, at which the competent authority will be consulted in the process of compiling the EIR and draft EMP as per the EIA Regulations R.543 (2010), will include amongst other, the following:

- During the Public Participation Process in accordance to EIA Regulations R.543 (2010), the draft EIR will be submitted to the competent authority for a period of 40 days to obtain their comments [R543 (56)];
- The final EIR will be submitted to the competent authority. They will have 60 days, after acknowledging receipt of the final EIR, to consider the report and in writing accept the report, reject the report or request additional information or amendments to the document [Regulation 543(34)(2)]; and
- Continued consultation with the competent authority until the decision is issued.

On receipt of authorisation (positive or negative) for the project, I&APs on the project database will be informed of this environmental authorisation and its associated terms and conditions by registered post.

8.3 Methodology of assessing the environmental issues

Regulation 31 of R.543 of the EIA Regulations (2010), under the NEMA (1998), requires that an EIR includes an assessment of the status, extent, duration, probability, reversibility, replaceability of resources and mitigatory potential of the major potential environmental impacts of the activity.

Impact assessments should be conducted based on a methodology that includes the following:

- Clear processes for impact identification, predication and evaluation;
- Specification of the impact identification techniques;
- Criteria to evaluate the significance of impacts;
- Design of mitigation measures to lessen impacts;
- Definition of the different types of impacts (indirect, direct or cumulative); and
- Specification of uncertainties.

In broad terms, the impact assessment for this project will include the following:

- All potential impacts of the activity will be identified and assessed;



- The nature, extent, magnitude and duration of all potentially significant impacts will be predicted;
- A range of mitigation measures that could diminish the impacts will be identified; and
- The significant of residual impacts that remain, after the proposed mitigation measures are implemented, will be evaluated.

After all impacts have been identified, the nature of each impact can be predicted. The impact prediction will take into account physical, biological, socio-economic and cultural information and will then estimate the likely parameters and characteristics of the impacts. The impact prediction will aim to provide a basis from which the significance of each impact can be determined and appropriate mitigation measures can be developed. The impact prediction will take into account the following parameters (Refer to Table 11):

- The extent of the impact. This refers to the physical or geographical size that is affected by the impact and is divided into the following categories:
 - Onsite: Within the specific site boundary;
 - Local: Within the municipal boundary; and
 - Regional: Outside of the municipal boundary.
- The duration of the impact. This refers to the time span associated with the impact and is divided into the following categories:
 - Short term: An impact lasting for one year or less;
 - Medium term: An impact lasting for one to five years; and
 - Long term: An impact lasting for more than five years.
- The intensity and reversibility of the impact. This refers to the severity of the impact on the receiving environment and is divided into the following categories:
 - Low: Natural and/or cultural processes continue in a modified way and the impact is reversible;
 - Medium: Natural and/or cultural processes stop and the impact is partially reversible; and
 - High: Natural and/or cultural processes are disturbed to an irreversible state.

A weighting value is assigned to each parameter category, with the value increasing as the impact becomes higher. For example, an impact that is of short duration will have a lower weighting value than one that is of longer duration.

To determine the significance of an impact, the weighting values for its extent, duration and intensity are added together (Extent + Duration + Intensity = High / Medium / Low Impact). Multiplication of the significance of the impact by the probability of the impact occurring produces a final conclusion of the overall risk that an impact poses to the surrounding environment (the “environmental risk”). To determine the probability or likelihood of an impact occurring, the following categories are used:

- Unlikely: There is a 0% - 45% chance of the potential impact occurring;
- Possible: There is a 46% - 75% chance of the potential impact occurring; and



- Likely: There is a greater than 75% chance of the potential impact occurring.

The environmental risk of an impact is plotted in a matrix, shown in Table 12. Assigning a colour to the environmental risk provides a clear and immediate visual representation of the magnitude of the risk of an impact on the environment.

Table 11: Environmental impact assessment parameters.

Parameters	Description
Extent	Refers to the physical or geographical size that is affected by the impact. It can be categorised into the following ranges: <ul style="list-style-type: none"> • Onsite – Within specific site boundary (weight value – 1) • Local – Within municipal boundary (weight value – 2) • Regional – Outside municipal boundary (weight value – 3)
Duration	Time span associated with impact: <ul style="list-style-type: none"> • Short term – 1 Year or less (weight value – 1) • Medium term – 1-5 Years (weight value –2) • Long term – Longer than 5 Years (weight value – 3)
Intensity and reversibility	The severity of an impact on the receiving environment: <ul style="list-style-type: none"> • Low – Natural and/or cultural processes continue in a modified way and is reversible (weight value – 1) • Medium – Natural and/or cultural processes stop and is partially reversible (weight value – 2) • High – Natural and/or cultural processes disturbed to an irreversible state (weight value – 3)
Significance of Impact / Consequence	Adding the extent, duration and intensity together provides the significance of the impact (High, Medium or Low). Extent + Duration + Intensity = High/Medium/Low Impact
Probability	The likelihood of an impact occurring: <ul style="list-style-type: none"> • Unlikely – 0% - 45% chance of the potential impact occurring (weight value – 1) • Possible – 46% - 75% chance of the potential impact occurring (weight value – 2) • Likely - >75% chance of the potential impact occurring (weight value – 3)
Environmental Risk Refer to Table 12 below	Multiplication of the significance of the impact by the probability of the impact occurring produces a final conclusion of the overall risk that an impact poses to the surrounding environment. High/Medium/Low Impact X Probability = High/Medium/Low Environmental Risk



Table 12: Environmental Risk Matrix.

		Significance of Impact		
		Low Impact (3 – 5)	Medium Impact (6 – 8)	High Impact (9)
Probability	Definite / Very Likely 3	9 – 15 L – M	16 – 24 M – H	27 H
	Possible 2	6 – 10 L – M	12 – 16 M	18 M – H
	Unlikely 1	3 – 5 L	6 – 8 L	9 L
ENVIRONMENTAL RISK		Guidelines for Control Strategies		
(H) – High		Proactively reduce risk level, short term response.		
(M-H) Medium to High		Proactively reduce risk level, short term response.		
(M) – Medium		Management strategies to reduce risk level, short to medium term response.		
(L-M) Low to Medium		Management strategies to reduce risk level, short to medium term response, operational control and housekeeping.		
(L) – Low		Operational control and housekeeping.		

Table 13 provides an example of the environmental impact assessment that will be done for every issue and potential impact identified.

Table 13: Environmental risk assessment: Environmental Awareness and Training

Activity: Operational activities at the Earlybird Farm Standerton.	
Aspect: Lack of environmental knowledge among employees.	
Nature of Environmental Impact: Harm to the environment due to employees being unaware of how their activities may impact the environment or due to unauthorised access to the site.	
Before Mitigation	
Extent of the Impact	2
Duration of the Impact	1
Intensity of the Impact	2
Significance of Impact = Extent of Impact + Duration of Impact + Intensity of Impact	5
Probability	2
Environmental Risk = Significance of Impact X Probability	10
Objective of Mitigation Measures	
To prevent harm to the environment through the actions of uneducated employees.	
Proposed Mitigation	
<ul style="list-style-type: none"> All employees are required to attend onsite Environmental Awareness/Training prior to commencing work on site. 	



- Follow-up Environmental Awareness/Training may be required from time to time as new employees commence work or for specific activities that may potentially impact the environment.
- The facility manager is to maintain accurate records of any training undertaken.
- The ECO shall monitor the facility managers' compliance with the requirement to provide sufficient environmental awareness training to all site staff.
- Training is to cover all aspects of the EMP and procedures to be followed.

After Mitigation	
Extent of the Impact	1
Duration of the Impact	1
Intensity of the Impact	1
Significance of Impact = Extent of Impact + Duration of Impact + Intensity of Impact	3
Probability	1
Environmental Risk = Significance of Impact X Probability	3

8.4 Public participation during the EIA process

The compilation of the EIR and draft EMP as per R.543 will include, but is not limited to, the following public participation:

- The draft EIR and draft EMP will be provided to the client for review prior to public and competent authority comment;
- The Public Participation Process will be conducted in accordance with the EIA Regulations R.543 (2010). This will include submitting the draft EIR to the competent authority and public for a review period of 40 days [Regulation 543(56)];
- All comments, objections and/or representations received during the Public Participation Process will be included and addressed in the final EIR and this document will be finalised;
- The final EIR and draft EMP will be submitted to the client to obtain their inputs; and
- Registered Interested and Affected Parties (I&APs) will be given an opportunity to comment on the final EIR as stipulated in R543 (56) (6). Their comments will be submitted directed to the competent authority and the EAP or applicant will be copied.

8.5 Alternatives

Alternatives have and will continue to be investigated and the “No-Go/No Project Option” will be included in the assessment. The EIA document will discuss the alternatives identified and investigated for the project as well as the advantages and disadvantages of each.



9. CONCLUSION

Potential environmental concerns, presented by the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation, include ambient air quality pollution, offensive odours, and soil-, surface- and groundwater pollution by wastewater generated by the rendering facility.

The public participation exercise has provided adequate information to enable an understanding of what the project would entail and also to address the concerns and comments of this Environmental Assessment.

Appropriate mitigation measures should be identified to minimise the potential impacts on the surrounding environment during the planning-, licensing- and administration-, operation- and closure phase of the development.

At this stage of the scoping phase it has been determined that the positive environmental and social impacts when licensing the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation outweigh the negative impacts.

Based on the above-mentioned information and the identification of the potential environmental impacts as a result of the listed activity (animal matter processing-rendering) and other emission sources associated with the Earlybird Farm Standerton operation it is concluded that a full Environmental Impact Assessment may commence.

