



FINAL BASIC ASSESSMENT REPORT

Basic Assessment Process for the Proposed Expansion of a Piggery facility and abattoir on Portion 6 of Farm Lamington No2, No.15205 located at Dr. Nkosazana Dlamini Zuma Local Municipality within the Harry Gwala District, DC 43.

Ref Number: DC43/0015/2020



PREPARED FOR: SIBAKHULU ENTERPRISE (PTY) LTD

CONTACT DETAILS

Project applicant:

Trading name (if any):	Sibakhulu Enterprise (Pty) Ltd
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EXECUTIVE SUMMARY

Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on Portion 6 of Farm Lamington No 2, No.15205, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District.

The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1500 wieners. The proposed piggery will be located in agricultural areas along D125 district road.

The nearest town is the small town of Underberg which is located about 8 km to the South-westerly direction of the proposed study site. The site is located on a flat surface (gentle slope). The site is away from steep slopes, intact natural vegetation, and watercourses (sensitive areas).

The Applicant currently operates with less than 250 sows from informal buildings, which were constructed in 2017. With the assistant of Department of Agriculture and Rural Development, the Applicant wishes to expand the piggery to house 250 sows and more. The water for this development will be sourced from an existing borehole within the property.

The infrastructure currently on the property for the piggery operations includes:

- 4 Informal houses to house sows, boar, weaner and growers
- 2 Farrowing houses
- Informal effluent channels and collection slurry dams.

The proposed expansion would include:

- Office and Ablution facility
- Construction of 4 (four) new sheds for the concentration of more than 250 pigs.
- Construction of 2 (two) slurry dams and refurbishment of drains and pathways
- Abattoir

The pigs are housed in fully slatted or partially slatted floors. No bedding or sawdust is used. The manure (solids and liquids) excreted by the animals falls through the slatted floor. The manure is temporarily stored under the slatted/ concreted floor in an effluent holding pit until the “flushing plug” is opened daily to release the effluent, which flows in a pipe to a slurry sump. It is then pumped from the slurry sump through a fixed separator which separates any solids from the sludge. The liquid is pumped to a holding pond to be recycled while the solids are concentrated and composted, and then sold to local farmers as manure. A windrow composting method is used. The pigs produce 28,000 litres of effluent per day. The effluent is a mixture of faeces, urine, and wash water. This effluent is separated into solids and liquids, using a rotary or static separator. The solids are loaded to a large compost heap, where it is broken down by various worms to produce a nutrient-rich organic material which is sold locally or collected by local crop farmers who fertilise their fields with the compost. Pig mortalities estimated to be between 1,000 and 2,000 kg/month are expected at the facility and will be dealt with by donating the carcasses to nearby parks or burial on a portion of land within the facility.

Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on Portion 6 of Farm Lamington No 2, No.15205, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District. The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size and is located at GPS coordinates 29°47'44.80" E and 29°24'49.99" S.

The proposed development footprint is for a 100 sow unit and up to 1 500 wieners. The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1 500 wieners. The proposed piggery is located in agricultural areas along D125 district road. The nearest town is the small town of Underberg which is located about 8 km to the South-westerly direction of the proposed study site. The site is located on a flat surface (gentle slope). The site is away from steep slopes, intact natural vegetation, and watercourses (sensitive areas). The

property has historically been used for agricultural activities including pig farming. No wetland systems were identified onsite, and no river channels (watercourses) were identified to flow through the property.

The infrastructure currently on the property for the piggery operations includes:

- 4 Informal houses to house sows, boar, weaner and growers
- 2 Farrowing houses
- Informal effluent channels and collection slurry dams.

The proposed project is to be undertaken in two phases. Phase 1 will comprise the establishment of a piggery.

- Office and Ablution facility;
- Construction of 4 (four) new sheds for the concentration of more than 250 pigs;
- Construction of 2 (two) slurry dams and refurbishment of dams and pathways;
- Abattoir, and,
- Carcass (mortality) pit.

In terms of the National Environmental Management Act (NEMA, Act No.107 of 1998) and the Environmental Impact Assessment (EIA) Regulations of 2014 (as amended – 2017), published in Government Notices No. R (GNR) 324, 325 and 327 of 2014 (as amended – 2017), the proposed project requires a Basic Assessment Process to be conducted.

PROJECT & ACTIVITY DESCRIPTION

1.1 PROJECT TITLE

Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on portion 6 of farm lamington, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District.

The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1500 wieners.

1.2 LISTED ACTIVITIES

All the listed activities that make up this application are listed below:

Activity	GNR	Actual Activity
Activity 3	GNR 327	The development and related operation of facilities or infrastructure for the slaughter of animals with a production throughput of- (ii) reptiles, game and red meat exceeding 6 units per day
Activity 39	GNR 327	The expansion and related operation of facilities for the concentration of animals [for the purpose of commercial production] in densities that will exceed— 8 square meters per small stock unit, where the expansion will constitute more than; (a) 1 000 additional units per facility or more excluding pigs where (b) applies; or (b) 250 additional pigs, excluding piglets that are not yet weaned;
Activity 43	GNR 327	The expansion and related operation of hatcheries or agri-industrial facilities outside industrial complexes, where the development footprint of the hatcheries or agriindustrial facilities will be increased by 2 000 square metres or more.

LIST OF LEGISLATION, POLICIES AND/OR GUIDELINES THAT ARE RELEVANT TO THE APPLICATION

Title of legislation, policy or guideline	Administering authority	Date
Integrated Development Plan	Harry Gwala District Municipality	2018 / 2019

Integrated Development Plan	Dr. Nkosazane Dlamini Zuma Municipality	2016 / 2021
Spatial Development Framework	Dr. Nkosazane Dlamini Zuma Municipality	2014
South African Pork Producers Association (SAPPO)	SAPPO	2019
National Health Act, Act 61 of 2003	NHA	2003
Foodstuffs, Cosmetics and Disinfectants Act, Act 54 of 1972	FCDA	1972
KZN Terrestrial Systematic Conservation Plan	SANBI	2010
National Environmental Management Act (NEMA)	DEA	1998
Environmental Impact Assessment Regulations, section 24(5) and 44 of the National Environmental Management Act, 1998	DEA	2014
Integrated Environmental Management Guideline Series: Companion to the EIA Regulations 2010 and Public Participation 2010.	DEA	2010
National Water Act (NWA), 1998 (36 of 1998) DWS 1998	DWS	1998
National Water Act Regulations, 1999 DWS 1999	DWS	1999
National Heritage Resources Act, 1999 SAHRA 1999	SAHRA	1999
KwaZulu-Natal Heritage Resources Act 10 of 1997 SAHRA 1997	SAHRA	1997
Constitution of South Africa 108 of 1996 DOJCD 1996	DOJCD	1996

National Roads Act 83 of 1996 DOT 1998	DOT	1998
Water Services Act 108 of 1997 DWS 1997	DWS	1997
EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning: Guideline on Alternatives,	DEA&DP	2011
EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning: Guideline on Public Participation.	DEA&DP	2011
EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning: Guideline on Need and Desirability.	DEA&DP	2011
EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning: Guideline on Generic Terms of Reference for EAPs and Project Schedules.	DEA&DP	2011
Guideline on Need and Desirability, Integrated Environmental Management Guideline Series 9, Department of Environmental Affairs (DEA), Pretoria, South Africa	DEA	2014

Department of Environmental Affairs (2017) Public Participation Guideline in terms of NEMA EIA Regulations.	DEA	2017
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SG 21 DIGIT CODE(S) OF THE PROPERTIES

Please indicate all the Surveyor-General 21 digit site reference numbers for all sites (including portions of sites) that are part of the application.

N	O	F	S	0	0	0	0	0	0	0	1	5	2	0	5	0	0	0	0	6
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1.5 PHYSICAL ADDRESS & FARM NAME

Physical address:	Bushman's Neck Road, D125
	Portion 6 of Lamington Farm
Postal address:	PO Box 33222
	Bulwer
Postal code:	3244

1.6 COORDINATES OF THE BOUNDARY OF THE PROPERTY

Latitude /Longitude	Degrees	Minutes	Seconds
South	29°	47'	44.80"
East	29°	24'	49.99"

1.7 DETAILED PROJECT DESCRIPTION OF THE ACTIVITIES TO BE UNDERTAKEN

Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on portion 6 of farm lamington, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District.

Development Property

The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1500 wieners. The

proposed piggery will be located in agricultural areas along D125 district road. The nearest town is the small town of Underberg which is located about 8 km to the South-westerly direction of the proposed study site. The site is located on a flat surface (gentle slope). The site is away from steep slopes, intact natural vegetation, and watercourses (sensitive areas).

Development Infrastructure

The Applicant currently operates with less than 250 sows from informal buildings, which were constructed in 2017. With the assistance of Department of Agriculture and Rural Development, the Applicant wishes to expand the piggery to house 250 sows and more. The water for this development will be sourced from an existing borehole within the property.

The infrastructure currently on the property for the piggery operations includes:

- 4 Informal houses to house sows, boar, weaner and growers;
- 2 Farrowing houses, and,
- Informal effluent channels and collection slurry dams.

The proposed expansion would include:

- Office and Ablution facility;
- Construction of 4 (four) new sheds for the concentration of more than 250 pigs;
- Construction of 2 (two) slurry dams and refurbishment of dams and pathways, and
- Abattoir.

The pigs are housed in fully slatted or partially slatted floors. No bedding or sawdust is used. The manure (solids and liquids) excreted by the animals falls through the slatted floor. The manure is temporarily stored under the slatted floor in an effluent holding pit until the “flushing plug” is opened daily to release the effluent, which flows in a pipe to a slurry sump. It is then pumped from the slurry sump through a fixed separator which separates any solids from the sludge. The liquid is pumped to a holding pond to be

recycled while the solids are concentrated and composted, and then sold to local farmers as manure. A windrow composting method is used. The pigs produce 28,000 litres of effluent per day. The effluent is a mixture of faeces, urine, and wash water. This effluent is separated into solids and liquids, using a rotary or static separator. The solids are loaded to a large compost heap, where it is broken down by various worms to produce a nutrient-rich organic material which is sold locally or collected by local crop farmers who fertilise their fields with the compost. Pig mortalities estimated to be between 1,000 and 2,000 kg/month are expected at the facility and will be dealt with by donating the carcasses to nearby parks or burial on a portion of land within the facility.

The process flow shown in Figure 1 can be summarized as follows: 1. Slurry is removed from the building by way of 315mm class 4 drain pipes. 2. Slurry is then deposited in a slurry pump sump with a capacity of 78m³. 3. The slurry sump is 1m higher than the slurry pipe to prevent spill. 4. From this sump the slurry is pumped with a slurry pump with a capacity of 45m³ per hour to a fixed separator with a capacity of 50m³ per hour. 5. The separator filters solids from the slurry through a screen of 250 microns. 6. The screened water is then deposited into the water storage dam with 1,000m³ volume. 7. The solid is deposited on a concrete slab and composted. 8. The water is recycled i.e. used to flush the pig pens again.

Development Operation

The operation of the proposed piggery establishment will be in line with the current legislation and regulations on pig welfare, hygiene and disease control, some of which include the National Health Act (Act No. 61 of 2003), and the Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972).

- The sow herd will be divided into equal breeding groups;
- Each breeding group will be served (bred) during a single week over a 20 or 21 week period, after which the cycle will repeat;
- Parturition will take place approximately 114 days following being served;
- The piglets will be weaned at three to four weeks. The weaner phase lasts from post date of birth to day 70;

- One week after the piglets are weaned, the sow herd will be served again;
- The grower phase lasts from day 70 to day 154, and once this phase is complete the pigs get transported to the nearest abattoir facility (i.e. AVI abattoir facility in Cato Ridge), and
- All pens will then be disinfected and cleaned with SABS approved chemicals before the next cycle commences. These chemicals satisfy the requirements specified in the Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972).

The proposed piggery establishment will comprise biosecurity measures to control contagious diseases, including classical swine fever, and foot and mouth disease. Standard vaccination programmes for contagious diseases will also be adhered to. A Veterinarian will also be required to conduct quarterly audits to ensure that the highest health and pig welfare standards are maintained.

PROVISION OF SERVICES

Water

During construction phase, water would be obtained from the existing borehole on farm. The application for the borehole registration and water use license has been lodged with the Department of Water Affairs and Sanitation. Additionally, the washing of the vehicles and machines may need to take place. This should take place in an appropriate location at least 100m away from any watercourses, using water stores on the farm (borehole).

During operation, water would be still obtained from the borehole on the farm. The proposed piggery expansion will not be using water from any other water resources except the existing borehole on site. The proposed piggery expansion and associated infrastructure has an anticipated water usage of 124 m³ / day. The volume of water available from the borehole will be adequate.

Effluent

The staff uses the flushable ablution facility. Effluent generated by the ablution facility is disposed of in septic tanks on site. The process of registration of the septic tank on the farm has also been lodged with DWS.

The proposed piggery expansion and associated infrastructure is anticipated to generate approximately 28,000 litres a day. All contaminated stormwater infrastructure (runoff from piggery during cleaning, carcass pit and slurry dams) will be lined with 300 mm compacted clay or a hard wearing liner such as 1500 micron HDPE. All effluent generated following cleaning of the pig houses will be collected and channelled into slurry dams.

The slurry dams will have a sufficient storage for 60 days of full operation from the proposed piggery expansion. It has been recommended that in addition to the slurry dams being lined, it must have a 500 mm freeboard (as defined as the elevation difference between the crest of the embankment and the full supply level of the slurry dams). The effluent will be used to irrigate the cultivated fields within the property.

Water use efficiency

The concrete flooring proposed at the Lamington Farm unit allows for pig manure, water, urine to drop through drainage system to the slurry dams. This will reduce water use on the farm. Some of the effluent would be spread on to surrounding crop and pasture lands according to the WULA and international best practice, thereby maximizing the economic value of the organic fertilizer.

Run off from dirty surfaces, e.g (pig houses and passages) would be directed into the effluent management system and to the slurry dams. Furthermore, regarding general wastewater management, the recommendations of DWS would be adhered to. A WULA is being undertaken that will guide and govern all parameters under which irrigation with effluent takes place. The agricultural use of sludge is seen as an appropriate cost effective management option for South Africa both for the agricultural and wastewater industry.

Sludge can also assist in increasing the organic content of soil. Generally, cultivated soils in South Africa are low in organic matter due to its rapid decomposition in our climate. This improvement of the physical properties of soil (water holding capacity, permeability

etc) as a result of an increase in organic carbon plays an important role in promoting the agricultural application of wastewater sludge in South Africa

Storm water Management

There is currently no formal stormwater infrastructure on the property. The stormwater infrastructure for the proposed project expansion has been designed to have minimal impact on the surrounding properties. Clean storm water (runoff from roofs) will be collected from the roofs by the tanks.

To allow for the recharge of underground resources, overflow from gutters and rainwater harvesting tanks must be directed into hardened areas such as roads, parking or natural drainage areas. It has been recommended that a cut-off drain or a bricked and plastered bund wall approximately 300 mm above the finished ground level be established above the contaminated stormwater infrastructure to divert the clean stormwater away from the contaminated stormwater.

Contaminated stormwater (runoff from piggery during cleaning, carcass pit and slurry dam) will be collected and diverted into slurry dams (Refer to effluent section above).

The piggery would employ best practise storm water management as outlined below:

- Rainwater would be captured from piggery roofs and collected in the tanks;
- Clean storm water from the piggery (e.g roofs, road surfaces) would drain to storm water grassed swales/natural drainage lines and contours and be dispersed over grassed, flat areas;
- Clean storm water would not be directed to the effluent management system as this would increase effluent volumes that need to be managed;
- All clean water and dirty storm water effluent would remain separate;
- Energy dissipating measures with regards to storm water outflow points would be installed where necessary to prevent soil erosion;

- All drainage would be controlled to ensure that runoff from the project area does not culminate in off-site pollution, flooding or result in any damage to properties downstream, of any water discharge points.

Domestic Waste

All domestic waste/ refuse generated onsite is proposed to be disposed of appropriately at the designated waste disposal area in drums/bins/ waste skips for nearest landfill site. The waste disposal area will be only temporarily stored such waste until such time it is collected/ disposed of at a landfill site. This activity does not trigger a waste management activity.

Mortalities

Each litter is anticipated to comprise approximately 12 piglets born alive. A 10 % pre-weaning mortality rate and a 4 % post-weaning mortality rate is anticipated. A 10 m³ lined carcass (mortality) pit is proposed to be used for the decomposition of pig mortalities. The carcass pit is proposed to be lined with a 300 mm clay layer and synthetic liner. The carcass pit will comprise a cover made of reinforced concrete with an opening large enough for the mortalities. The opening will comprise a lid that can be secured and sealed when it is not in use. It is recommended that the carcass pit be established in an area where odour nuisances on surrounding properties will be minimal.

Traffic and Roads

The property is currently accessed from the D125 Road and serves surrounding properties, farms and developments. The property is served by the other gravel road which joins D125. Both roads are gravel and in good condition.

The proposed project is anticipated to have minimal traffic related impacts and impacts on the condition of the D125 Road. Traffic volumes are not expected to increase significantly, nor are the types of vehicles utilising the roads anticipated to change. During the construction phase, there will be construction vehicles and equipment onsite, but this machinery will continue to remain onsite until project completion and will therefore not impact on traffic or access routes. During the operational phase, there will be feed trucks

that will use the D125 Road on a weekly basis. Trucks collecting the pigs will depend on the rotation cycle of the piggery establishment.

It has been recommended that all existing internal roads and parking maintained in a good condition to suit the anticipated traffic volumes.

REASON FOR TRAVEL	TYPE OF VEHICLE	NUMBER OF VEHICLES / WEEK	NUMBER OF VEHICLES / MONTH
Delivery of feed	Heavy vehicle – truck	1	4
Collection of pigs after rotation cycle	Heavy vehicle – truck	-	6
Collection of bagged solid effluent to be sold to local compost companies	Heavy vehicle – truck	1	4
Collection of excess solid and liquid effluent for disposal at the Landfill Site and a registered Wastewater Treatment Works	Heavy vehicle – truck	-	3
Veterinarian audit / visitors	Light vehicle – truck	4	4

Electricity

There is currently existing electrical infrastructure onsite. An application to Eskom will be made for the increased electrical supply should there be a need for the proposed project.

Dust control

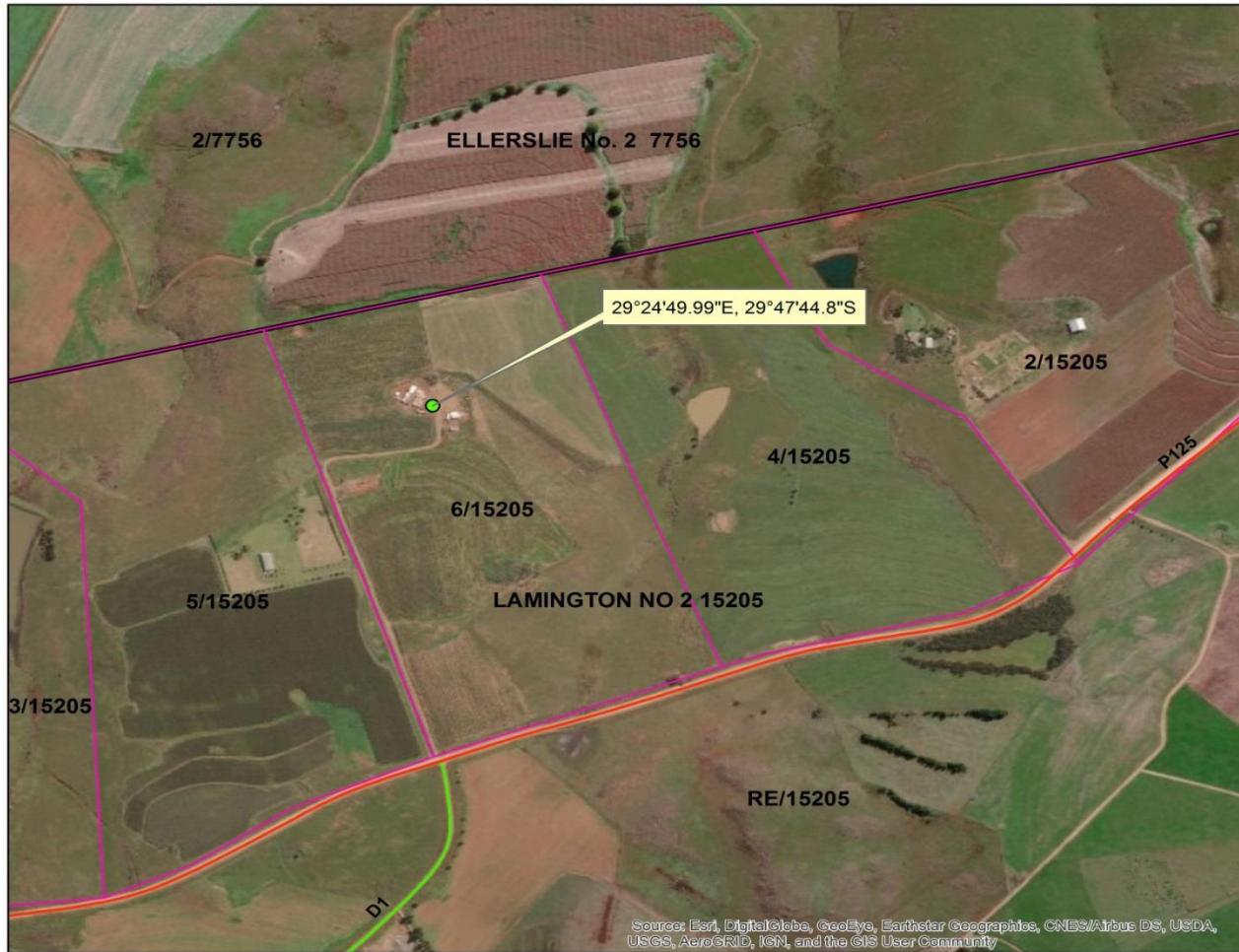
During construction phase dust would be created due to site clearing and building activities. This is short-lived and is not considered being of significant impact.

During operation phase dust would be also created with vehicles accessing the piggery; however this is not expected to be of significant impact. Surfaces would be concreted, grassed or hardened as soon as established, thus minimising dust generation.

Electricity is available on site. The following means to increase energy efficiency would be employed at Lamington Farm:

- Use of natural ventilation and lighting as far as possible;
- Orientation of buildings to:
 - Optimise temperature management for sun influence; and
 - Prevailing wind direction for natural ventilation.
- Control ventilation and temperature within the houses through the use of drop-down curtains;

Locality Map Portion 6 of Farm Lamington No. 15205



Legend

- Rivers
- Prov Roads**
- CLASS**
- N
- P
- D
- L
- Farm Portion
- Farm Parent

1:8 000



Site Photographs









NEED AND DESIRABILITY

Motivate and explain the need and desirability of the activity.

The following section makes use of the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) Guideline on Need and Desirability (2011) and the Department of Environmental Affairs (DEA) Pretoria, Integrated Environmental Management Guideline Series 9: Guideline on Need and Desirability (2014).

Is the activity permitted in terms of the property's existing land use rights?

Yes. The property has historically been used for agricultural activities and is an existing pig farm. As such, the proposed piggery expansion is in line with the land use rights of the property. As such, the activity is permitted in terms of the property's existing land use rights.

Will the activity be in line with the Provincial Spatial Development Framework (PSDF)?

Yes. The National Spatial Development Framework (NSDF) promotes rapid economic growth that is sustained and inclusive, and is a prerequisite for the achievement of other policy objectives, among which poverty alleviation is key. The Provincial Spatial Development Framework (PSDF) takes as its starting point this goal of sustainable development. Development is only acceptable and in the public interest if it is ecologically justifiable, socially equitable and economically viable, i.e. environmentally sustainable. This means that the development needs of present generations should be met without the ability of future generations to meet their own needs, being compromised.

The Lamington Farm falls within an „Economic Support Area“. Areas of economic support comprise good economic potential in more than just one of the key provincial economic sectors. These areas are considered important for economic support and have

good potential to be expanded on (i.e. economic prioritisation of development, labour force interventions, key economic infrastructure investment and area promotion).

The PSDF identifies the agricultural sector as key to addressing poverty. The commercial agricultural sector which the proposed piggery establishment forms a part, is the major employer within the Dr Nkosazane Dlamini Zuma Local Municipality, and forms the economic anchor of these municipalities. As a result, in order to help achieve a reduction in unemployment and poverty, the commercial agricultural sector needs to grow and be transformed. The proposed piggery establishment will play an important role in enhancing the local agricultural sector, generating local employment opportunities and reducing poverty.

As such, the proposed project is in line with the goals of the PSDF.

Will the activity be in line with the Urban Edge / Edge of Built Environment for the area?

Yes. An urban edge is a distinguished line that serves to manage, direct and control urban expansion. It indicates the edge between land available for urban development and land that is to remain part of the rural landscape and natural environment. The proposed expansion project falls within a rural agricultural setting within Underberg. The proposed project will take place on an existing and operational farm, and will thus not impact on the urban edge or edge of built environment for the area.

As such, the proposed project will not result in further urban expansion.

Will the activity be in line with the Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality; would the approval of this application compromise the integrity of the existing approved and credible Municipal IDP and SDF?

Yes. In terms of the Municipal Systems Act (Act No. 32 of 2000), every municipality in South Africa is obliged to develop an Integrated Development Plan (IDP) to realise the

constitutional mandate of local government. The IDP is a strategic management tool, which aims to guide and align all planning, budgeting and operational decisions of the municipality and other spheres of governments. It is a legally binding document and replaces all other plans that guide development at local government level.

According to the Dr Nkosazane Dlamini Zuma Local Municipality IDP, the municipality has been identified to have high agricultural potential. It is primarily an agricultural community with agriculture, manufacturing and tourism contributing to the generation of employment opportunities within the municipality. According to the Dr Nkosazane Dlamini Zuma Local Municipality SDF, the municipality is highly dependent on the agricultural sector for economic commodities, as most of its industries are focused around sugar cane and poultry. Given the high agricultural production potential of large areas within the municipality, agriculture is identified as an integral part of the urban fabric.

As such, the proposed project is in line with the IDP and SDF of the Dr Nkosazane Dlamini Zuma Local Municipality.

Will the activity be in line with an approved Structure Plan of the Municipality?

Yes, the Dr Nkosazane Dlamini Zuma Local and uMgungundlovu District Municipality identify the need for a reduction in food insecurity and poverty through investment in, and improvement and transformation of the agricultural sector, as well as the generation of employment opportunities. This in turn results in skills development, income generation and improved quality of life.

As such, the proposed project is in line with an approved Structure Plan of the municipality.

Will the activity be in line with any other plans (e.g. Guide Plan)?

This is not applicable to this application.

Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate?).

Yes. According to the Dr Nkosazane Dlamini Zuma Local Municipality IDP and SDF, the agricultural sector is important for the economy and the communities which form part of the municipality. There is a need to consider the impacts on agriculture from all economic activities and identify ways to preserve and strengthen this sector as a viable economic mainstream. The municipality has identified the need to diversify agricultural production in the area to ensure the sustainability of this sector. This in turn will ensure economic spin offs for the local economy. The proposed piggery establishment is thus in line with the Dr Nkosazane Dlamini Zuma Local Municipality IDP and SDF.

In the agricultural industry it is becoming increasingly important for farmers to utilise economies of scale in order to remain sustainable. The job security of the labour that will be employed on the property will rely on its sustainability. Thus, the Applicant is proposing the expansion of a piggery which will require labour and thus result in the generation of employment opportunities. This in turn will result in skills development, income generation, improved quality of life and benefits to the economy.

Agriculture is associated with the production of essential food resources and raw materials (i.e. fruit, vegetables and livestock products) which are a significant and favoured source of essential vitamins, minerals and other nutrients. The increase in the amount of locally produced agricultural products will help to keep prices low, and thus more people can have access to these products. Pork products are an affordable source of protein when compared to other meat products, and South Africa is a net importer of pork.

The need for pork production has thus increased significantly. Agricultural products are fundamental to lower the risk of diseases and infections and to boost immune systems through the intake of essential vitamins, minerals and nutrients. Income that is earned

due to the proposed project results in decreased poverty and malnourishment rates. Investment in agricultural areas thus ensures food security and a healthier working population.

As such, the community / area need the activity and the associated land use.

10. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?

As part of the proposed expansion, the necessary services will be established i.e. stormwater and wastewater infrastructure, access roads etc. Electrical and water infrastructure will be required to be extended to allow for the proposed project.

11. Is this development provided for in the infrastructure planning of the Municipality, and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?

As such, the proposed project is provided for in the infrastructure planning of the Dr Nkosazane Dlamini Zuma Local Municipality.

12. Is this project part of a national programme to address an issue of national concern or importance?

No. Since the proposed project is a private sector project, it is not part of a national programme to address an issue of national concern or importance. However, the proposed project will help towards addressing the issues of unemployment, poverty, malnourishment and food insecurity which are issues of national concern.

Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)

Yes. According to the Dr Nkosazane Dlamini Zuma Local Municipality IDP, the municipality has been identified to have high agricultural potential. It is primarily an agricultural community with agriculture, manufacturing and tourism contributing to the generation of employment opportunities within the municipality. According to the Dr Nkosazane Dlamini Zuma Local Municipality SDF, the municipality is highly dependent on the agricultural sector for economic commodities, as most of its industries are focused around sugar cane and poultry farming. It is also identified, that in order for the potential of the agricultural sector to be realised, it needs to grow and be transformed. The property has historically been used for agricultural activities and pig farming. The proposed piggery expansion will thus contribute to the diversification and transformation of the agricultural sector.

As such, location factors favour this land use.

Is the development the best practicable environmental option for this land/site?

The property is currently unzoned and is used for agricultural purposes. To leave the property undeveloped would serve no purpose. There is potential for the encroachment of alien invasive vegetation and runaway fires to occur which will have significant impacts to surrounding properties.

As such, the positive impacts associated with the proposed project will far outweigh the negative impacts. The proposed piggery establishment will result in the generation of employment opportunities, and in turn skills development, income generation and improved quality of life. The need for pork production has increased significantly and will thus help towards preventing the need for pork products to be imported.

This will help keep pork product prices low and affordable, which has long-term benefits to the economy. Provided that the proposed project is undertaken adhering to the

mitigation measures provided in the EMPr, and recommendations of the Specialist Studies, the impacts associated with the proposed project will be minimal.

As such, the proposed project is the best practicable environmental option for this land.

Will the benefits of the proposed land use/development outweigh the negative impacts of it?

The proposed project will have minimal negative impacts on the surrounding environment, while ensuring continued management and sustainability of the property, provided that the proposed project is undertaken adhering to the mitigation measures provided in the EMPr, and recommendations of the Specialist Studies, the impacts associated with the proposed project will be minimal.

As such, the benefits of the proposed project will outweigh the anticipated negative impacts.

Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?

Yes. There is a growing demand for locally produced agricultural products, especially pork products which are affordable and favourable. Commercial agriculture is a key economic sector in the Harry Gwala District and is listed in the IDP as one of the critical contributors to the district's net GDP. The need for pork production has increased significantly in recent years. A larger portion of the population is also starting to realise the importance of agricultural products in their diets. As a result, more farmers want to utilise areas on their farms to their maximum advantage, which ensure the farms long-term sustainability, as well as the generation of employment opportunities. As such, the proposed piggery establishment has the potential to set a precedent for similar activities in the area.

It is aligned with the zoning of Agriculture and Eco-tourism. The proposed piggery would form a critical part of the operation of a technologically- advanced piggery enterprise which aims to improve local and national food security, while providing employment

However, each project will need to go through an Environmental Authorisation Process to determine whether the project is acceptable at a particular location.

Will any person's rights be negatively affected by the proposed activity/ies?

No. The proposed project is permitted in terms of the property's existing land use rights, and all Interested and Affected Parties (I&APs), and surrounding neighbours and landowners have been notified of the proposed project.

Will the proposed activity/ies contribute to any of the 18 Strategic Integrated Projects (SIPS)?

No. Since the proposed project is a private sector project, it will not contribute to any of the 18 Strategic Integrated Projects (SIPS). However, the proposed project will help towards addressing the issues of unemployment, poverty, malnourishment and food insecurity. The generation of employment opportunities will thus in turn result in skills development, income generation and improved quality of life.

What will the benefits be to society in general and to the local communities?

The need and desirability for the expansion of Sibakhulu Enterprise is measured against the contents of the IDP and SDF for region and is found to align wholly within the ambit of these goals, objectives and spatial plans. The benefits of a technologically – advanced, environmentally- sound and productive operation include:

- Approximately number of employment opportunities would be created during construction of which all the unskilled labour required would be sourced from local previously disadvantaged individuals;

- Increased direct job opportunities on farm, full time positions when operational;
- Healthy and hygienic work environment for the piggery and crop workers;
- Ancillary development within agricultural sector- electricians, consultants, meat inspectors, vets, transport, feed, etc;
- Not less than minimal wage (likely to be more) for staff, improving the per capita earnings and benefiting the broader community.
- Improved provision of a primary food source, for improved regional and national food security.

The proposed development would be consistent with the current agricultural land-use. The Department of Agriculture and Rural Development has no objection to the development. The sense of Place would in no way be altered.

The Dr Nkosazana Dlamini Zuma Local Municipality IDP and SDF identifies the need to promote investment in, and enhancement and transformation of the agricultural sector. The agricultural sector has also been identified as key to reducing poverty. Since the municipality comprises high agricultural potential, the proposed piggery establishment will play a role in helping towards addressing the requirements of the Dr Nkosazane Dlamini Zuma Local Municipality IDP and SDF. The proposed piggery establishment will also result in the generation of employment opportunities, which will in turn result in skills development, income generation and improved quality of life.

Agriculture is associated with the production of essential food resources and raw materials (i.e. fruits, vegetables and livestock products) which are significant and favoured source of essential vitamins, minerals and other nutrients. Agricultural products are also beneficial in lowering the risk of diseases and infections, and boosting the immune systems of those in the poorer sector of society who do not have access to health care. The need for pork production has increased significantly. Although pork products are generally affordable and favourable, in order to keep prices low, the importing of pork products needs to be prohibited. Thus in turn, the proposed piggery establishment will contribute towards meeting the demand for pork production and keeping prices of pork products

low. The affordability of agricultural products has the potential to reduce poverty, food insecurity and malnourishment.

How does the project fit into the National Development Plan for 2030?

The proposed project addresses point 1 of the National Development Plan (NDP) for 2030, through the generation of employment opportunities.

1. Unemployment X
2. The quality of school education for black people is poor.
3. Infrastructure is poorly located, inadequate and under-maintained.
4. Spatial divides hobble inclusive development.
5. The economy is unsustainably resource intensive.
6. The public health system cannot meet demand or sustain quality.
7. Public services are uneven and often of poor quality.
8. Corruption levels are high.
9. South Africa remains a divided society.

Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

This Basic Assessment Report covers the objectives set out in Section 23 of the NEMA (Act No. 107 of 1998). Many Specialists have been consulted for the feasibility work undertaken for the proposed project. Mitigation measures have been developed to address the potential environmental impacts identified by the Specialist Studies and mitigation measures are included in the EMPr. Participation of key I&APs has been facilitated.

Please describe how the principles of environmental management as set out in section 2 of NEMA has been taken into account.

Section 2 of the NEMA (Act No. 107 of 1998) states that “environmental management must place people and their needs at the forefront of its concern, and serve their physical,

psychological, developmental, cultural and social interests equitably". The disturbance of ecosystems has been minimised and rehabilitation guidance is included in the EMPr.

3. ALTERNATIVES

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

–

- (a) the "do nothing" option of not implementing the activity**
- (b) The type of activity to be undertaken**
- (c) The layout or design of the activity:**
- (d) The technology to be used in the activity:**
- (e) The technology to be used in the activity:**
- (f) The operational aspects of the activity**

(a) the "do nothing" option of not implementing the activity

The "do nothing" option would mean that the proposed piggery establishment on Lamington Farm will not be undertaken and the farm will remain in its current state.

The proposed piggery Expansion will result in several benefits, and there is potential for the positive impacts to far outweigh the negative impacts. According to the Dr Nkosazane Dlamini Zuma Local Municipality and Spatial Development Framework (SDF), the agricultural sector is key to addressing poverty. However, its full potential to the economy has not yet been realised. In order to realise the full potential of the agricultural sector, it requires growth, diversification and transformation to ensure its sustainability and that the economic spin offs are transferred to the economy.

In the agricultural industry it is becoming increasingly important for farmers to utilise economies of scale in order to remain sustainable. The job security of the labour that will be employed on the property will rely on its sustainability. Thus, the Applicant is proposing the expansion of a piggery which will require labour and thus result in the

generation of employment opportunities. This in turn will result in skills development, income generation and improved quality of life.

Agriculture is associated with the production of essential food resources and raw materials (i.e. fruit, vegetables and livestock products) which are a significant and favoured source of essential vitamins, minerals and other nutrients. The increase in the amount of locally produced agricultural products will help to keep prices low, and thus more people can have access to these products.

Pork products are an affordable source of protein when compared to other meat products, and South Africa is a net importer of pork. The need for pork production has thus increased significantly in recent years. Agricultural products are fundamental to lower the risk of diseases and infections and to boost immune systems through the intake of essential vitamins, minerals and nutrients. Income that is earned as a result of the proposed project will lead to decreased poverty and malnourishment rates. Investment in the agricultural sector thus ensures food security and a healthier working population.

If the “do nothing” option is selected, none of the above benefits will be realised. The property is likely to result in the encroachment of alien invasive vegetation and the potential for runaway fires to occur. This in turn will have significant impacts on surrounding properties. Over time there is likely to be negative impacts on the property as a whole, since it will not be making adequate income to keep it running sustainably. There is potential for there to be a negative impact on the health and wellbeing of the surrounding community members, as no employment opportunities will be generated.

(b) The type of activity to be undertaken:

Activity alternatives have not been investigated as part of the Basic Assessment Process. The proposed project comprises the expansion of a piggery. The property has historically been used for agricultural activities except the portion where the expansion of the piggery is proposed. However, since the soil type does not allow anything to grow, hence the Applicant is proposing to expand the piggery. The crop farming on the proposed portion of the site as an alternative was not considered to be “feasible” alternatives, because of the soil type (very dry). To confirm this, ever since the farm has been practising

Agriculture, the proposed site for piggery expansion had never been cultivated or planted as nothing grows there (Google image) . As such, the application is specifically for the expansion of a piggery, and no alternative activity types have been assessed in this Report.

GOOGLE IMAGE.SHOWING UNCULTIVATED PORTION



(c) The layout or design of the activity:

Layout:

Layout alternatives have been investigated as part of the Basic Assessment Process prior to the site visit being undertaken. Prior to undertaking the site visit, the Environmental Assessment Practitioner (EAP) identified portions of the property to be significantly fertile hence they have been cultivated before and the applicant is continuing with cultivation.

4.4 PRE-APPLICATION MEETING

A Pre-application meeting was held 20 November 2020 on Micro Soft teams with the Department of Economic Development, Tourism and Environmental Affairs (DEDTEA). Comments received and responses provided during the Pre-application meeting are included. The Pre-application meeting agenda, attendance register and minutes are include

CIRCULATION OF THE DRAFT BASIC ASSESSMENT REPORT

Name of Department	Contact person
Department of Economic Development, Tourism & Environmental Affairs	Thobani Khathi
Ezemvelo KZN Wildlife	Nerisa Pillay
Amafa	Bernadette Pawandiwa
Department of Human Settlements, Water & Sanitation	Andisa Msomi
Department of Agriculture & Rural Development	Zodwa Msibi
Department of Transport	Judy Madibe
Dr Nkosazana Dlamini Zuma Local Municipality	Zweli Nyanisa

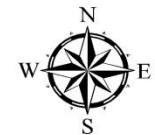
Locality Map Portion 6 of Farm Lamington No. 15205



Legend

- Effluent Dams
- Abattoir
- Shed
- Farm Portion

1:1 000



The property is currently accessed off the D125 Road. This road is in good condition and serves surrounding properties, farms and developments. Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on portion 6 of farm lamington, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District.

The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1500 wieners

The proposed piggery will be located in agricultural areas along D125 district road.

The nearest town is the small town of Underberg which is located about 8 km to the South-westerly direction of the proposed study site. The site is located on a flat surface (gentle slope). The site is away from steep slopes, intact natural vegetation, and watercourses (sensitive areas).

The Applicant currently operates with less than 250 sows from informal buildings, which were constructed in 2017. With the assistant of Department of Agriculture and Rural Development, the Applicant wishes to expand the piggery to house 250 sows and more. The water for this development will be sourced from an existing borehole within the property.

The infrastructure currently on the property for the piggery operations includes:

- 4 Informal houses to house sows, boar, weaner and growers
- 2 Farrowing houses
- Informal effluent channels and collection slurry dams.

The proposed expansion would include:

- Office and Ablution facility
- Construction of 4 (four) new sheds for the concentration of more than 250 pigs.

- Construction of 2 (two) slurry dams and refurbishment of drains and pathways
- Abattoir

The pigs are housed in fully slatted or partially slatted floors. No bedding or sawdust is used. The manure (solids and liquids) excreted by the animals falls through the slatted floor. The manure is temporarily stored under the slatted floor in an effluent holding pit until the “flushing plug” is opened daily to release the effluent, which flows in a pipe to a slurry sump. It is then pumped from the slurry sump through a fixed separator which separates any solids from the sludge. The liquid is pumped to a holding pond to be recycled while the solids are concentrated and composted, and then sold to local farmers as manure. A windrow composting method is used.

The pigs produce 28,000 litres of effluent per day. The effluent is a mixture of faeces, urine, and wash water. This effluent is separated into solids and liquids, using a rotary or static separator. The solids are loaded to a large compost heap, where it is broken down by various worms to produce a nutrient-rich organic material which is sold locally or collected by local crop farmers who fertilise their fields with the compost. Pig mortalities estimated to be between 1,000 and 2,000 kg/month are expected at the facility and will be dealt with by donating the carcasses to nearby parks or burial on a portion of land within the facility.

The process flow shown in Figure 1 can be summarized as follows: 1. Slurry is removed from the building by way of 315mm class 4 drain pipes. 2. Slurry is then deposited in a slurry pump sump with a capacity of 78m³. 3. The slurry sump is 1m higher than the slurry pipe to prevent spill. 4. From this sump the slurry is pumped with a slurry pump with a capacity of 45m³ per hour to a fixed separator with a capacity of 50m³ per hour. 5. The separator filters solids from the slurry through a screen of 250 microns. 6. The screened water is then deposited into the water storage dam with 1,000m³ volume. 7. The solid is deposited on a concrete slab and composted. 8. The water is recycled i.e. used to flush the pig pens again.

Design:

Design alternatives have not been investigated as part of the Basic Assessment Process. The proposed piggery expansion will be designed with state of the art infrastructure, which will ensure compliance with international best practice standards in terms of improved pig welfare, minimal odour nuisances and pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production. As such, no design alternatives have been assessed in this Report.

(d) The technology to be used in the activity:

The technology to be used for the proposed piggery expansion and associated infrastructure will ensure compliance with international best practice standards in terms of improved pig welfare, minimal odour nuisances and pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production.

The disposal of pig mortalities in a carcass pit is considered the most feasible and is currently the industry norm. It is supported by the State Veterinary Department. Carcass pits are relatively easy to establish. The carcass pit has been recommended to be 10 m³ and as such, there is adequate area on the property for management of pig mortalities.

(f) The operational aspects of the activity:

Operational alternatives have not been investigated as part of the Basic Assessment Process. The proposed piggery Expansion will operate to ensure compliance with international best practice standards in terms of improved pig welfare, minimal odour nuisances and pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production. As such, no operational alternatives have been assessed in this Report.

6. POTENTIAL IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

6.1 TOPOGRAPHY

The property is situated on a south-westerly facing slope with a maximum gradient of approximately 15.5 % and a minimum of approximately 1.7 %. The altitude ranges

from 668 m to 744 m above sea level. The proposed for the expansion of the piggery has bare soil.

Cultivated land

Implication / Risk / Impact:

Vegetation clearing, stockpiling of material and construction activities have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources.

Mitigation / Recommendations:

- Areas surrounding the proposed piggery expansion and associated infrastructure must be protected from erosion;
- No vehicular or pedestrian access must be permitted beyond the proposed piggery establishment;
- Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare soils (Refer to Appendix P);
- Rehabilitation and revegetation of bare areas must take place as soon as possible;
- Alien invasive vegetation clearing must be ongoing; and
- The planting of non-indigenous vegetation must be prohibited.

6.2 CLIMATE

Description:

Sibakhulu Enterprise Pty (Ltd) is proposing to undertake an expansion of the piggery and associated infrastructure on portion 6 of farm lamington, at the Dr. Nkosazana Dlamini Zuma local municipality within the Harry Gwala District. The site is accessed from D125 gravel road.

The total extent of the property is 30 hectare and the development footprint for the proposed sheds and associated infrastructure will be approximately 1 hectare in size. The proposed development footprint is for a 100 sow unit and up to 1500 wieners

The proposed piggery will be located in agricultural areas along D125 district road.

The nearest town is the small town of Underberg which is located about 8 km to the South-westerly direction of the proposed study site. The site is located on a flat surface (gentle slope). The site is away from steep slopes, intact natural vegetation, and watercourses (sensitive areas).

The Applicant currently operates with less than 250 sows from informal buildings, which were constructed in 2017. With the assistance of Department of Agriculture and Rural Development, the Applicant wishes to expand the piggery to house 250 sows and more. The water for this development will be sourced from an existing borehole within the property.

The infrastructure currently on the property for the piggery operations includes:

- 4 Informal houses to house sows, boar, weaner and growers
- 2 Farrowing houses
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The proposed expansion would include:

- Office and Ablution facility
- Construction of 4 (four) new sheds for the concentration of more than 250 pigs.
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The pigs are housed in fully slatted or partially slatted floors. No bedding or sawdust is used. The manure (solids and liquids) excreted by the animals falls through the slatted floor. The manure is temporarily stored under the slatted floor in an effluent holding pit until the “flushing plug” is opened daily to release the effluent, which flows in a pipe to a slurry sump. It is then pumped from the slurry sump through a fixed separator which separates any solids from the sludge. The liquid is pumped to a holding pond to be recycled while the solids are concentrated and composted, and then sold to local farmers as manure. A windrow composting method is used. The pigs produce 28,000 litres of

effluent per day. The effluent is a mixture of faeces, urine, and wash water. This effluent is separated into solids and liquids, using a rotary or static separator.

The solids are loaded to a large compost heap, where it is broken down by various worms to produce a nutrient-rich organic material which is sold locally or collected by local crop farmers who fertilise their fields with the compost. Pig mortalities estimated to be between 1,000 and 2,000 kg/month are expected at the facility and will be dealt with by donating the carcasses to nearby parks or burial on a portion of land within the facility.

The process flow shown in Figure 1 can be summarized as follows: 1. Slurry is removed from the building by way of 315mm class 4 drain pipes. 2. Slurry is then deposited in a slurry pump sump with a capacity of 78m³. 3. The slurry sump is 1m higher than the slurry pipe to prevent spill. 4. From this sump the slurry is pumped with a slurry pump with a capacity of 45m³ per hour to a fixed separator with a capacity of 50m³ per hour. 5. The separator filters solids from the slurry through a screen of 250 microns. 6. The screened water is then deposited into the water storage dam with 1,000m³ volume. 7. The solid is deposited on a concrete slab and composted. 8. The water is recycled i.e. used to flush the pig pens again.

The highest precipitation being received in January is approximately 144 mm and it rain falls for 20 days, with the lowest precipitation received in June/ July with the lowest rainfall of 10 mm. Warmest months are January, February and December, with an average high-temperature of 25°C. The coldest months in Underberg, are June and July, with an average high-temperature of 18°C.

Implication / Risk / Impact:

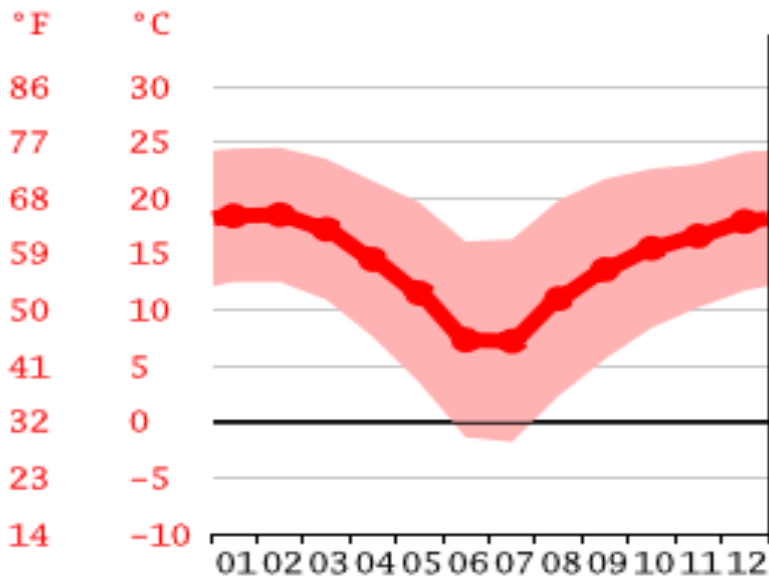
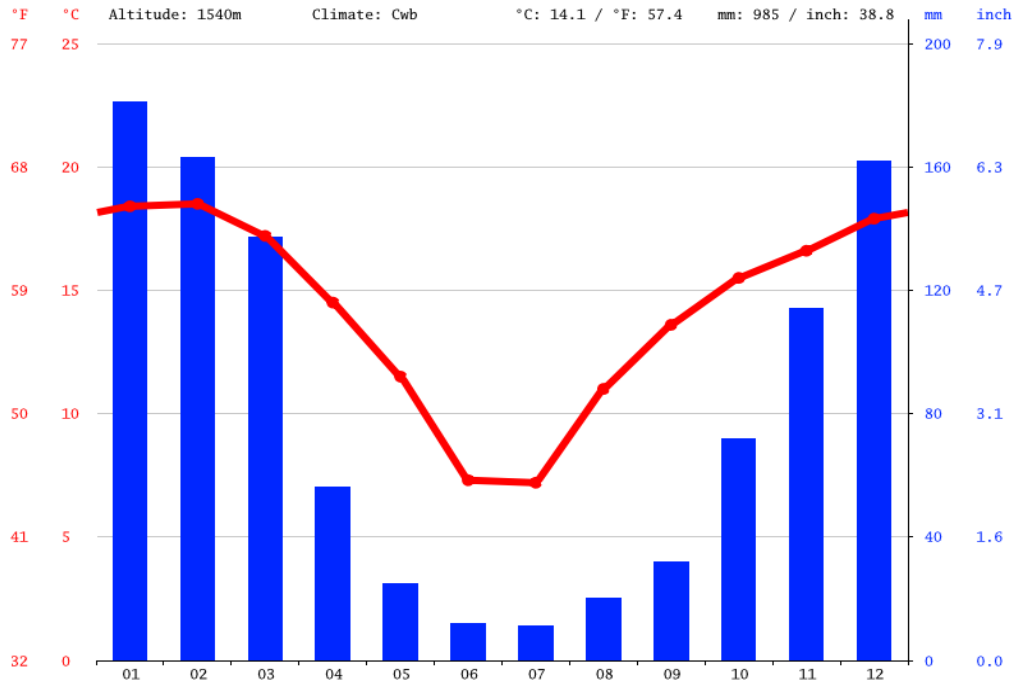
- Construction activities have the potential to result in soil being wind-blown and generating dust nuisances;
- Potential exists for high intensity rainfall to cause soil erosion; and

- Vegetation clearing, stockpiling of material and construction activities, along with high intensity rainfall, have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources.

Mitigation / Recommendations:

- Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare areas (Refer to Appendix P);
- Vegetation must remain intact where possible to limit high surface runoff and the mobilisation of sediment;
- Measures must be taken to cover bare areas during high intensity rainfall;
- Dust suppression measures, such as spraying of water on bare soil, must be undertaken during dry and windy conditions;
- Rehabilitation and revegetation of bare areas must take place as soon as possible;
- Alien invasive vegetation clearing must be ongoing; and
- The planting of non-indigenous vegetation must be prohibited.

FIGURE: Underberg average annual rainfall and temperature (<https://en.climate-data.org>)



6.3 GEOLOGY AND SOILS

According to (Geological Survey, 1981 a and 1981 b) the site is underlain by basaltic lava, fine grained sandstone and agglomerate. Springbok flats correlated with the Drakensberg Group (SACS, 1980). Basalt of the Drakensberg Formation occupies a narrow belt of the steep land along the high escarpment.

Implication / Risk / Impact:

- The proposed project has the potential to result in disturbance and compaction of soils, thus leading to the potential of increased surface runoff and erosion;
- Vegetation clearing, stockpiling of material and construction activities have the potential to result in soil being wind-blown, and generating dust related impacts;
- Vegetation clearing, stockpiling of material and construction activities, along with high intensity rainfall, have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources; and
- Disturbance and compaction of soils has the potential to result in the encroachment of alien invasive vegetation and the loss of natural habitat for fauna and flora.

Mitigation / Recommendations:

- Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare areas
- Vegetation must remain intact where possible to limit high surface runoff and the mobilisation of sediment;
- Measures must be taken to cover bare areas during high intensity rainfall;
- Rehabilitation and revegetation of bare areas must take place as soon as possible;
- Alien invasive vegetation clearing must be ongoing; and
- The planting of non-indigenous vegetation must be prohibited.
- During operation phase dust would be also created with vehicles accessing the piggery; however this is not expected to be of significant impact. Surfaces would be concreted, grassed or hardened as soon as established, thus minimising dust generation.

6.4 RIVERS AND WETLAND SYSTEMS

There were no wetlands that were identified on site. No rivers and any watercourse within the 32m of the proposed site.

6.5 FLORA

Description:

A Biodiversity Assessment

A Biodiversity Assessment was conducted for the proposed project. It was observed and concluded that there was no critical biodiversity as the portion on which the expansion of the piggery is proposed has been always dry, without any coverage e.g grass or any indigenous vegetation.

A Biodiversity Assessment was conducted for the proposed project. Due to the transformed nature of the proposed development site, it is unlikely that any faunal species of conservation concern will occur species that may occur on the property include antelope and faunal species which are mobile, and thus can relocate to surrounding properties during the construction phase of the proposed project.

Implication / Risk / Impact:

Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for flora.

Mitigation / Recommendations:

- The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase;
- Vegetation must remain intact where possible to limit high surface flows and mobilisation of sediment;
- Removal of invasive alien vegetation, and rehabilitation and revegetation must be ongoing;

- The Alien Invasive Vegetation Management Programme must be implemented and the planting of non-indigenous vegetation must be prohibited.

Implication / Risk / Impact:

Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for fauna.

Mitigation / Recommendations:

- The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase; and
- Vegetation must remain intact where possible to limit disturbance to faunal habitats.

6.6 FAUNA

Description:

A Biodiversity Assessment was conducted for the proposed project. Due to the transformed nature of the proposed development site, it is unlikely that any faunal species of conservation concern will occur. Species that may occur on the property include antelope and faunal species which are mobile, and thus can relocate to surrounding properties during the construction phase of the proposed project.

Implication / Risk / Impact:

Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for fauna.

Mitigation / Recommendations:

- The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase; and

- Vegetation must remain intact where possible to limit disturbance to faunal habitats

7. SPECIALIST STUDIES: KEY FINDINGS AND RECOMMENDATIONS

The following on site and desktop assessments were undertaken for the proposed project as part of the Basic Assessment Process:

- Biodiversity Assessment
- Stormwater Management Plan; and
- Heritage Impact Assessment

7.1 Biodiversity Assessment

A Biodiversity Assessment was conducted for the proposed project. It was observed and concluded that there was no critical biodiversity as the portion on which the expansion of the piggery is proposed has been always dry, without any coverage e.g grass or any indigenous vegetation.

A Biodiversity Assessment was conducted for the proposed project. Due to the transformed nature of the proposed development site, it is unlikely that any faunal species of conservation concern will occur species that may occur on the property include antelope and faunal species which are mobile, and thus can relocate to surrounding properties during the construction phase of the proposed project refer to annexure H)

7.2 Bulk and Internal Services Engineering Analysis.

The aim of the assessment was to identify the existing services available on the property and the impact the proposed piggery expansion will have on these services, including the proposed service upgrades required to accommodate the proposed piggery establishment.

Water

The applicant has an existing borehole which is located within the property expansion. Water for the farm is currently obtained from the taps via the borehole. The proposed piggery expansion will not be using water from any other water resources except the existing borehole on site. The application process to register the borehole has been initiated/ lodge with DWS.

The proposed piggery expansion and associated infrastructure has an anticipated water usage of 124 m³ / day. The volume of water available from the borehole will be adequate.

Effluent

The staff uses the flushable ablution facility. Effluent generated by the ablution facility is disposed of in septic tanks on site. The application process to register the septic tank has been initiated/ lodge with DWS.

The proposed piggery expansion and associated infrastructure is anticipated to generate approximately 28,000 litres a day. All contaminated stormwater infrastructure (runoff from piggery during cleaning, carcass pit and slurry dams) will be lined with 300 mm compacted clay or a hard wearing liner such as 1500 micron HDPE. All effluent generated following cleaning of the pig houses will be collected and channelled into slurry dams.

The slurry dams will have a sufficient storage for 60 days of full operation from the proposed piggery expansion. It has been recommended that in addition to the slurry dams being lined, it must have a 500 mm freeboard (as defined as the elevation difference between the crest of the embankment and the full supply level of the slurry dams). The effluent will be used to irrigate the cultivated fields within the property.

Storm water Management

There is currently no formal stormwater infrastructure on the property. The stormwater infrastructure for the proposed project expansion has been designed to have minimal impact on the surrounding properties and watercourses. Clean stormwater (runoff from roofs) will be collected from the roofs by the tanks.

Storm water management

The piggery would employ best practise storm water management as outlined below:

- Rainwater would be captured from piggery roofs and collected in the tanks;
- Clean storm water from the piggery (e.g roofs, road surfaces) would drain to storm water grassed swales/natural drainage lines and contours and be dispersed over grassed, flat areas;

- Clean storm water would not be directed to the effluent management system as this would increase effluent volumes that need to be managed;
- All clean water and dirty storm water effluent would remain separate;
- Energy dissipating measures with regards to storm water outflow points would be installed where necessary to prevent soil erosion;
- All drainage would be controlled to ensure that runoff from the project area does not culminate in off-site pollution, flooding or result in any damage to properties downstream, of any water discharge points.

To allow for the recharge of underground resources, overflow from gutters and rainwater harvesting tanks must be directed into hardened areas such as roads, parking or natural drainage areas. It has been recommended that a cut-off drain or a bricked and plastered bund wall approximately 300 mm above the finished ground level be established above the contaminated stormwater infrastructure to divert the clean stormwater away from the contaminated stormwater.

Contaminated stormwater (runoff from piggery during cleaning, carcass pit and slurry dam) will be collected and diverted into slurry dams (Refer to effluent section above).

Domestic Waste

All domestic waste/ refuse generated onsite is proposed to be disposed of appropriately at the designated waste disposal area in drums/bins/ waste skips for nearest landfill site. The waste disposal area will be only temporarily stored such waste until such time it is collected/ disposed of at a landfill site. This activity does not trigger a waste management activity.

Mortalities

Each litter is anticipated to comprise approximately 12 piglets born alive. A 10 % pre-weaning mortality rate and a 4 % post-weaning mortality rate is anticipated. A 10 m³ lined carcass (mortality) pit is proposed to be used for the decomposition of pig mortalities. The carcass pit is proposed to be lined with a 300 mm clay layer and synthetic liner. The carcass pit will comprise a cover made of reinforced concrete with an opening

large enough for the mortalities. The opening will comprise a lid that can be secured and sealed when it is not in use. It is recommended that the carcass pit be established in an area where odour nuisances on surrounding properties will be minimal.

Traffic and Roads

The property is currently accessed from the D125 Road and serves surrounding properties, farms and developments. The property is served by the other gravel road which joins D125. Both roads are gravel and in good condition.

The proposed project is anticipated to have minimal traffic related impacts and impacts on the condition of the D125 Road. Traffic volumes are not expected to increase significantly, nor are the types of vehicles utilising the roads anticipated to change.

During the construction phase, there will be construction vehicles and equipment onsite, but this machinery will continue to remain onsite until project completion and will therefore not impact on traffic or access routes. During the operational phase, there will be feed trucks that will use the D125 Road on a weekly basis. Trucks collecting the pigs will depend on the rotation cycle of the piggery establishment.

It has been recommended that all existing internal roads and parking maintained in a good condition to suit the anticipated traffic volumes.

Electricity

There is currently existing electrical infrastructure onsite. An application to Eskom will be made for the increased electrical supply should there be a need for the proposed project.

Electricity is available on site. The following means to increase energy efficiency would be employed at Lamington Farm:

- Use of natural ventilation and lighting as far as possible;
- Orientation of buildings to:
 - Optimise temperature management for sun influence; and
 - Prevailing wind direction for natural ventilation.

- Control ventilation and temperature within the houses through the use of drop-down curtains;

Mitigation / Recommendations:

- The Stormwater Management Plan must be implemented;
- Clean and contaminated stormwater must be separated;
- The septic tank must have a capacity of at least four hours of the expected peak flow of domestic effluent;
- The design and construction of the effluent system must comply with Section P and Q of SANS 10400, where applicable;
- The position of the effluent system must be indicated on the building plans for approval by the Dr Nkosazane Dlamini Zuma Local Municipality; and
- The area surrounding the proposed effluent system must be cleared of alien invasive vegetation regularly, as well as other high water demand vegetation species.

7.3 Stormwater Management Plan

A Stormwater Management Plan was compiled for the proposed project. The aim of the plan was to provide recommendations and mitigation measures to ensure the preservation of the natural environmental, drainage areas, wetland systems etc., the management of the unexpected increase in surface runoff, to control surface runoff, and to separate clean and contaminated water.

There is currently no formal stormwater infrastructure on the property. The stormwater infrastructure for the proposed project has been designed to have minimal impact on the surrounding properties and watercourses.

Clean stormwater (runoff from roofs) will be collected in open concrete drains along each building and it will be diverted towards a silt trap and stormwater attenuation pond. The volume of clean stormwater is anticipated to be approximately 158 m³ / day to be released at a pre-development rate of 0.123 m³ / second. It has been recommended that an underflow attenuation pond be established to promote infiltration into underground resources. The attenuation pond must be established

with a water depth of approximately 1.5 m, a freeboard of approximately 0.5 m, and a 300 mm silt trap to collect silt in the basin. Overflow sections of the pond must be protected with a reno-mattress to prevent erosion.

To allow for the recharge of underground resources, overflow from gutters and rainwater harvesting tanks must be directed into hardened areas such as roads, parking or natural drainage areas. It has been recommended that a cut-off drain or a bricked and plastered bund wall approximately 300 mm above the finished ground level be established above the contaminated stormwater infrastructure to divert the clean stormwater away from the contaminated stormwater.

Contaminated stormwater (runoff from piggery during cleaning, carcass pit and slurry dams) will be collected and diverted into the slurry dams.

Mitigation / Recommendations:

- Rainwater harvesting off all proposed buildings and roofed areas must be encouraged
- Clean and contaminated water must be separated;
- All chemicals, cement, fuels and hazardous substances used during the construction phase must be kept in a controlled and bunded area;
- Following completion of the construction phase, all exposed and bare areas must be rehabilitated and revegetated as soon as possible;
- Concentration of stormwater runoff must be prevented where possible;
- The stormwater attenuation pond must comprise a 300 mm silt trap; and
- All stormwater infrastructure must be regularly monitored during both the construction and operational phase.

7.4 Heritage Impact Assessment

A desktop Heritage Impact Assessment was conducted for the proposed project. The information gathered was also confirmed by the applicant who is the farm owner there has never been a case where graves or any of the heritage feature was identified on

site. The aim of the assessment was to identify and assess any heritage sites or features of archaeological significance associated with the proposed project. The assessment did not identify any heritage sites, features or graves, fossils on the property.

Mitigation / Recommendations:

If permission is granted for the development to proceed, the client is reminded that the Act requires that the developer cease all work immediately and notify Amafa should any heritage resources, as defined in the Act, be discovered during the course of the proposed project.

8. ASSESSMENT OF ENVIRONMENTAL IMPACTS

In order to assess potential environmental issues associated with the proposed project, each aspect addressed in have been given a qualitative rating in relation to its environmental impact Each aspect has been divided into a number of different classes, each of which has been assigned various criteria.

Where relevant, the following methods have been used to predict the characteristics of identified impacts

- Professional judgement;
- Quantitative mathematical models;
- Experiments and physical models;
- Physical or visual simulations or maps (including GIS tools);
- Case studies; and
- Past experience.

Summary of aspects used for assessing environmental impacts

ASPECT	CLASS	CRITERIA
	Positive	The impact on the environment will be positive.
	Negative	The impact on the environment will be negative.

NATURE OF IMPACT	Direct	The impact is caused directly by the activity and generally occurs at the same time and at the place of the activity.
	Indirect	The impact induces changes that may occur as a result of the activity.
	Cumulative	The impact is a result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities
OCCURRENCE OF IMPACT	Construction	The impact will happen during construction.
	Operation	The impact will happen during operation.
	Decommissioning	The impact will happen during decommissioning.
	Immediate	The impact will happen immediately.
	Delayed	There will be a delay in the impact occurring.
PROBABILITY OF IMPACT OCCURRING (with mitigation)	Definitely	The impact will definitely occur even with mitigation (100%).
	Likely	It is likely that the impact will occur (60%-99%).
	Fair	There is a fair chance that the impact will occur (30% -59%).
	Unlikely	It is unlikely that the impact will occur (0% - 29%).
REVERSIBILITY (with mitigation)	Possible	It is possible to reverse the impact.
	Partly	It is partly possible to reverse the impact.
	Not possible	It is not possible to reverse the impact.
EXTENT OF IMPACT (with mitigation)	Site	The impact will be limited to the site.
	Local	The impact will affect the local area (within a radius of 40km).
	Provincial	The impact will affect areas beyond the site but within the boundaries of KwaZulu-Natal.
	National	The impact will affect areas beyond the Province but within the boundaries of South Africa.
DURATION (with mitigation)	Short- Term	0-5 years (construction phase).

	Medium-Term	5-40 years (construction and operation).
	Long- term	(> 40 years).
	Permanent	Permanent damage to the environment.
SIGNIFICANCE OF IMPACT WITHOUT MITIGATION	Low	Small impact / disturbance.
	Medium	Moderate impact / disturbance expected.
	High	Significant impact / disturbance expected.
SIGNIFICANCE OF IMPACT POSTMITIGATION	Low	Small impact / disturbance.
	Medium	Moderate impact / disturbance expected.
	High	Significant impact / disturbance expected.

PUBLIC PARTICIPATION

All requirements in terms of Section 41 of the EIA Regulations (2014, amended 2017) have been undertaken.

Through the EIA process, SSK Consulting makes every effort to ensure that information containing all relevant facts in respect of the application is made available to potential IAPs and participating by potential or registered IAPs is facilitated in such a manner that all potential or registered IAPs are provided with a reasonable opportunity to comment on the application, as guided by regulations.

This serves as a summary of the Public Participation Process (PPP) followed for the Environmental Process as per the NEMA EIA (2017) Regulations for the Proposed Expansion of a Piggery facility and abattoir on Portion 6 of Farm Lamington No2, No.15205 located at Dr. Nkosazana Dlamini Zuma Local Municipality within the Harry Gwala District, DC 43. KZN. The PPP commenced in January 2021 where site notices were erected at the proposed site and main access roads. During this time comment forms & BID flyers were distributed to interested and affected parties (I&APs) via hard copies delivered in post boxes and at houses and surrounding localities as well as via email.

An advert was placed in the local newspaper, in both English and Zulu. The adverts were placed as follows:

- The Zulu Advert and the English advert were placed in the Mountain Echo Newspaper on the January/February issue refer to **Annexure C**.

The adverts indicated the project scope and details of the EAP to contact as well as the process to be followed. A Draft Basic Assessment Report and Environmental Management Programme was compiled and will be distributed to the relevant authorities and to the public for review, for a 30-day comment from the date of submission, a period in which I&AP's were afforded the opportunity to raise any further issues and concerns.

PUBLIC PARTICIPATION PROCESS

Public Notices/Site Notices

Public notices and site notes were displayed near the proposed site and along the main access routes. Refer to copy of:

Written notice by way of a Background Information Document (BID) to occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site

on which the activity is to be undertaken, the owner or person in control of the site where the activity is or to be undertaken and to any alternative site where the activity is to be undertaken; owners, persons in control of, and occupiers of land adjacent to the site where the activity is or to be undertaken and to any alternative site where the activity is to be undertaken; the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area; the municipality which has the jurisdiction in the area; any organ of state having jurisdiction in respect of any aspect of the activity; any other party as required by the competent authority.

A background Information Document (BID) was distributed to all IAP's to inform them of the proposed expansion of the development and encourage them to voice any concerns or issues they may have with it refer to annexure D.

- Photographs as proof of site notice displayed.

Written Notices and Background Information Document (BID)

A background information document and notification letter with an invitation register to I&APs, to submit comments as per attached comment sheet was distributed as follows:

- Emailed to all Stakeholders and Interested & Affected Parties (I&APs)
- Distributed by hand to the surrounding community.

Please refer to BID provided in the PPP section for the detail regarding individuals contacted as per above-mentioned list as well as the content of BID and comment form.

Advertisements

Advertisements regarding inter alia the proposed project scope of works, and details of locations as well as details of EAP. Adverts were placed in one newspaper (English and Zulu).

The details are as follows:

- The Zulu Advert and the English advert were placed in the Mountain Echo Newspaper on the January/February issue.

I&AP Communication

In the Draft Basic Assessment no comments were placed as none were received. All comments received as part of the 30-day public review process are captured in the Issues Trail and submitted with the Final BAR.

Draft Basic Assessment Report review

The Draft Basic Assessment Report was made available for review for a period of 30 days (15 February to March 2021). No comments were received as part of the 30 day public review process

Notification of proposed application

A number of notices were placed in clearly visible spots where the public would be able to read

- Lamington Farm entrance
- Along the main road
- Shops

See IAP Register and BID in Annexure E

Placing an advertisement in local newspaper:

Other efforts to assist IAPs desirous but unable to participate in the process due to illiteracy, disability, or disadvantage, include-

A site visit was conducted with Mr A Msomi from DWS on the 19 March 2021 in the presence on Mr Dlamini, the farm owner.

IAPs comments

No Comments or objections that were received from the public and any other relevant stakeholders after 30 days. On site meeting on the 19 April 2021 with Mr. A Msomi from DWS was held on site. There was no objection, the process of the WULA was initiated with him. The existing borehole and the septic tank will be registered

The Draft BAR was circulated to all registered AIPs for 30 days, to invite further comments. Stakeholders were provided with their own copies some hard copies and some electronic reports.

The public hard copy of the reports was made available at the Underberg Library On 16 February 2021 and Dr NDZ Local Municipality respectively.

The following relevant departments listed below were provided with the DBAR for their comments: To date, there were comments, rejections that were received.

- i) Zodwa Msibi- Department of Agriculture and Rural Development
- ii) Bernadette Pawandiwa - KwaZulu Natal Amafa and Research Institute
- iii) Andisa Msomi- Department of Water and Sanitation
- iv) Nerisaa Pillay -EKZMW
- v) Nonhlanhla Zulu- Dr Nkosazane Dlamini Zuma Local Municipality
- vi) T Khathi- Department of Economic Development, Tourism and Environmental Affairs

Summary of issues:

Issue	Response/ attendance within project
DWS	Noted:

Andisa Msomi from DWS raised the comment on the application for WUL, Registration of the existing borehole and septic tank.	The process of the WULA was initiated with DWS. The existing borehole and the septic tank will be registered

CONCLUDING STATEMENT

Environmental Impact statement

It is important to assess an application holistically, addressing the social, economic and environmental factors influencing the project.

Social considerations

The need and desirability for the expansion of Sibakhulu Enterprise is measured against the contents of the IDP and SDF for region and is found to align wholly within the ambit of these goals, objectives and spatial plans. The benefits of a technologically – advanced, environmentally- sound and productive operation include:

- Approximately... number of employment opportunities would be created during construction of which all the unskilled labour required would be sourced from local previously disadvantaged individuals;
- Increased direct job opportunities on farm to...full time positions when operational;
- Healthy and hygienic work environment for the piggery and crop workers;
- Ancillary development within agricultural sector- electricians, consultants, meat inspectors, vets, transport, feed, etc;

- Not less than minimal wage (likely to be more) for staff, improving the per capita earnings and benefiting the broader community.
- Improved provision of a primary food source, for improved regional and national food security.

The proposed development would be consistent with the current agricultural land-use. The Department of Agriculture and Rural Development has no objection to the development. The sense of Place would in no way be altered.

Economic considerations

Commercial agriculture is a key economic sector in the Harry Gwala District and is listed in the IDP as one of the critical contributors to the district's net GDP. The proposed development of Sibakhulu Enterprise PTY (Ltd) piggery expansion is on the land....dry and not suitable for cultivation of any crop. It is aligned with the zoning of Agriculture and Eco-tourism. The proposed piggery would form a critical part of the operation of a technologically- advanced piggery enterprise which aims to improve local and national food security, while providing employment.

Environmental considerations

All potential environmental issues and risks that were identified during the environmental impact assessment process can be foundSECTIONS....EMPR

These risks are ranked according to primary and secondary as follows-

Primary Risks-

Proposed monitoring and auditing schedule

Upon commencement of construction (includes site establishment) of the piggery, an Environmental Control Officer (ECO) should be appointed to conduct audits (based on the conditions of the Environmental Authorisation and approved EMPr) of the **site monthly for the duration of the construction phase.**

Audit reports should be compiled after every visit and submitted to the DEDTEA: Compliance, Monitoring and Enforcement Unit and DWS.

During operation of the new piggery expansion development, the ECO should continue to conduct operational audits every 6 months for the **first 2 years of operation**. Audit reports should be compiled after each and every visit and submitted to the DEDTEA: Compliance, Monitoring and Enforcement and DWS.

Impacts on 'sense of place' due to fly, odour, visual management

- Flies should be of minding nuisance due to the following operation factors-
- All the manure under the slatted/ concreted floors is submerged in liquid (urine and water), making it impossible for the flies to lay;
- The solids are removed regularly;
- Once the solids are in the slurry dams, it will be too wet for the fly larvae to survive
- The piggery building must be kept clean and well ventilated since bad odours build up when there is poor or inadequate ventilation.
- Excessive build-up of manure within piggery houses and below the floor area is avoided by frequent flushing (pull-plug) of effluent from the houses to the slurry dams.
- Effluent must not be stored in sumps for long periods, therefore eliminating the odour as a result of aerobic decomposition.
- Slurry dams must be inspected regularly to ensure there is no leaks or overflow of effluent.
- Sufficient freeboard must be available to ensure storage integrity during heavy rainfall events.
- Liquid effluent from the slurry dams must be distributed/ irrigated onto cultivated land, using proper methods.
- Pumping occurs regularly as weather conditions permits.
- Irrigation must be avoided on windy and wet days

- Irrigation with effluent must be conducted on a rotational basis so as to avoid soil nutrient loading leading to toxic levels.
- The soil fraction of the effluent must be stored on an impermeable surface that is property drained with drains leading back to the slurry dams.
- Mortalities must be taken straight mortality pit before causing any flies and odours.
- The roofs of the pig houses must be painted green to reduce visual impacts.

**ASSESSMENT
OF
POTENTIAL IMPACTS

AND
ASSOCIATED WITH THE
PROPOSED PROJECT**

Assessment of potential impacts associated with the proposed project

DESCRIPTION OF IDENTIFIED ENVIRONMENTAL IMPACT	MITIGATION	NATURE OF IMPACT	Degree to which impacts	Probability of impacts occurring		Reversibility of Impacts		Extent of Impacts		DURATION OF IMPACT		SIGNIFICANCE OF IMPACT WITHOUT MITIGATI	SIGNIFICANCE OF IMPACT WITH MITIGATION
				Without impacts	With impacts	Without impacts	With impacts	Without impacts	With impacts	Without impacts	With impacts		
<p>LOCAL ECONOMY AND EMPLOYMENT OPPORTUNITIE</p> <p>If approved, the proposed project will contribute positively to the local economy and the social environment through spending of capital at local businesses;</p> <ul style="list-style-type: none"> • The proposed project will result in the generation of skilled and unskilled employment opportunities during both the construction and operational phase. This in turn will result in income generation, skills development, and improved quality of life for those employed and their dependents; and • There will also be a number of skills transferred during the construction and operational phase, which will benefit employed people in the long-term when they seek future employment. 	<ul style="list-style-type: none"> • Local businesses and unemployed people in the immediate area must be considered first, before employing labour and services from further afield; and • The use of local contractors, suppliers and service providers must be undertaken. 	Positive Direct	-	Definite	Definite	-	-	Local	Local	Short-term during Construction Medium-term during Operation	Short-term during Construction Medium-term during Operation	High Positive	High Positive

<p>PLANNING INITIATIVES</p>	<p>None</p>	<p>None</p>	<p>Positive Direct and Indirect</p>	<p>-</p>	<p>Definite</p>	<p>Definite</p>	<p>-</p>	<p>-</p>	<p>Local</p>	<p>-</p>	<p>Medium-term & long-term</p>	<p>Medium-term & long-term</p>	<p>High Positive</p>	<p>High Positive</p>
<p>Needs and desirability</p>	<p>The proposed project will result in the generation of skilled and unskilled employment opportunities during both the construction and operational phase. This in turn will result in income generation, skills development, and improved quality of life;</p> <ul style="list-style-type: none"> • There will also be a number of skills transferred during the construction phase, which will benefit employed people in the long-term when they seek employment elsewhere; • Increased earning potential will allow more people to afford agricultural products, especially pork products, which will result in a strong, healthy, working population; and • The availability and affordability of pork products will help lead to a decrease in food insecurity, poverty and malnourishment rates. 	<p>Local businesses and unemployed people in the immediate area must be considered first, before employing labour and services from further afield; and</p> <ul style="list-style-type: none"> • The use of local contractors, suppliers and service providers must be undertaken. 	<p>Positive Direct and Indirect</p>	<p>-</p>	<p>Definite</p>	<p>Definite</p>	<p>-</p>	<p>-</p>	<p>Local</p>	<p>Local</p>	<p>Short-term during Construction Medium-term during Operation</p>	<p>Short-term during Construction Medium-term during Operation</p>	<p>High Positive</p>	<p>High Positive</p>

<p>CULTURAL AND RESOURCES</p>	<p>No heritage sites, features or graves were identified on the property; <ul style="list-style-type: none"> • The greater area is not part of any known cultural landscape; and • The property is identified to have a moderate fossil sensitivity and is thus unlikely to have an impact on Paleontological resources. </p>	<p>If permission is granted for the development to proceed, the client is reminded that the Act requires that the developer cease all work immediately and notify Amafa should any heritage resources, as defined in the Act, be discovered during the course of the proposed project; <ul style="list-style-type: none"> • The contaminated stormwater structures must be lined to prevent underground contamination; and • If paleontological resources are identified during the construction phase, construction activities must cease immediately. A Palaeontologist must be informed and will be required to conduct a site inspection to evaluate paleontological resources before the construction phase may continue </p>	<p>Negative Direct</p>	<p>Highly likely</p>	<p>Unlikely</p>	<p>Unlikely</p>	<p>Possible</p>	<p>Possible</p>	<p>Site & local</p>	<p>Site & local</p>	<p>Medium-term</p>	<p>Medium-term</p>	<p>Low</p>	<p>Low</p>
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<p style="text-align: center;">SURROUNDING LANDUSE AND AESTHETICS</p>	<p>Since the proposed project will take place on an existing and operational farm, negative impacts on surrounding landuse and aesthetics are likely to be minimal;</p> <ul style="list-style-type: none"> • The proposed project will form part of the existing farm which is surrounded by commercial agricultural lands. Thus, the proposed project will not negatively impact on the surrounding landuse and aesthetics as it will blend in with the surrounding area; and • The proximity of the proposed piggery establishment to surrounding properties will not alter the sense of place of the area, but will rather create both social and economic upliftment for the surrounding area if run properly. 	<p>Removal of alien invasive vegetation, and rehabilitation and revegetation of disturbed areas must be ongoing;</p> <ul style="list-style-type: none"> • The planting of non-indigenous vegetation must be prohibited; and • Noise, dust and odour nuisances must be controlled to avoid impacts on surrounding neighbours and landowners. 	<p style="text-align: center;">Negative Direct & Indirect</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Fair</p>	<p style="text-align: center;">Not Possible</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Long-term</p>	<p style="text-align: center;">Medium-term</p>	<p style="text-align: center;">High</p>	<p style="text-align: center;">Low</p>
<p style="text-align: center;">TRAFFIC, ROADS AND ACCESS</p>	<ul style="list-style-type: none"> • The proposed project is likely to result in minimal traffic generation and traffic related impacts; • Excessive speed poses a threat to both road users and animals; and • Increased use of the access roads on the property may result in accelerated deterioration. 	<p>Vehicles accessing the property must be driven cautiously and within the required speed limits; and</p> <ul style="list-style-type: none"> • Maintenance of access roads on the property must be undertaken as and when necessary. 	<p style="text-align: center;">Negative Direct</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Short-term during Construction Medium-term during Operation</p>	<p style="text-align: center;">Short-term during Construction. Medium-term during Operation</p>	<p style="text-align: center;">High</p>	<p style="text-align: center;">Low</p>

<p style="text-align: center;">CONSTRUCTION ACTIVITIES, NOISE AND DUST</p>	<ul style="list-style-type: none"> Noise and dust related impacts on surrounding neighbours and landowners is likely to be minimal if the facility is managed properly. 	<p>It is recommended that the proposed project be limited to regular working hours (Monday to Saturday, 07h00 to 17h00) during the construction phase;</p> <ul style="list-style-type: none"> Construction vehicles and equipment must be maintained and regularly serviced to ensure that unnecessary noise nuisances are prevented; Construction labour must not create unnecessary noise such as hooting or shouting; and Dust suppression measures, such as the spraying of water on bare soil, must be undertaken during dry, windy conditions. 	<p style="text-align: center;">Negative Direct</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Fair</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Short-term during Construction Medium-term during Operation</p>	<p style="text-align: center;">Short-term during Construction Medium-term during Operation</p>	<p style="text-align: center;">Med</p>	<p style="text-align: center;">Low</p>
<p style="text-align: center;">SECURITY</p>	<p>Potential exists for potential job seekers to trespass onto surrounding properties; and</p> <ul style="list-style-type: none"> It is unlikely that crime will increase in the surrounding area due to the proposed project. 	<p>Construction labour must remain within the boundaries of the property at all times;</p> <ul style="list-style-type: none"> The Applicant must sign up with Magma Security, the local security company, to ensure that all security related concerns are dealt with; Local businesses and unemployed people in the immediate area must be considered first, before employing labour and services from further afield; and The use of local contractors, suppliers and service providers must be undertaken. 	<p style="text-align: center;">Negative Direct</p>	<p style="text-align: center;">Highly likely</p>	<p style="text-align: center;">Fair</p>	<p style="text-align: center;">Unlikely</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site</p>	<p style="text-align: center;">Short-term during Construction. Medium-term</p>	<p style="text-align: center;">Short-term during Construction. Medium-term</p>	<p style="text-align: center;">Medium</p>	<p style="text-align: center;">Low</p>
<p style="text-align: center;">TOPOGRAPHY</p>	<ul style="list-style-type: none"> Vegetation clearing, stockpiling of material and construction activities have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources. 	<p>Areas surrounding the proposed piggery establishment and associated infrastructure must be protected from erosion;</p> <ul style="list-style-type: none"> No vehicular or pedestrian access must be permitted beyond the proposed piggery establishment; Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare soils (Refer to Appendix P); Rehabilitation and revegetation of bare areas must take place as soon as possible; Alien invasive vegetation clearing must be ongoing; and The planting of non-indigenous vegetation must be prohibited. 	<p style="text-align: center;">Negative Direct and Indirect</p>	<p style="text-align: center;">Likely</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Unlikely</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site</p>	<p style="text-align: center;">Medium-term</p>	<p style="text-align: center;">Short-term</p>	<p style="text-align: center;">Medium</p>	<p style="text-align: center;">Low</p>

<p style="text-align: center;">CLIMATE</p>	<ul style="list-style-type: none"> • Construction activities have the potential to result in soil being wind-blown and generating dust nuisances; • Potential exists for high intensity rainfall to cause soil erosion; and • Vegetation clearing, stockpiling of material and construction activities, along with high intensity rainfall, have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources. 	<p>Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare areas (Refer to Appendix P);</p> <ul style="list-style-type: none"> • Vegetation must remain intact where possible to limit high surface runoff and the mobilisation of sediment; • Measures must be taken to cover bare areas during high intensity rainfall; • Dust suppression measures, such as spraying of water on bare soil, must be undertaken during dry and windy conditions; • Rehabilitation and revegetation of bare areas must take place as soon as possible; • Alien invasive vegetation clearing must be ongoing; and • The planting of non-indigenous vegetation must be prohibited. 	<p style="text-align: center;">Negative Direct & Indirect</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Likely</p>	<p style="text-align: center;">Fair</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & local</p>	<p style="text-align: center;">Site</p>	<p style="text-align: center;">Medium-term</p>	<p style="text-align: center;">Short-term</p>	<p style="text-align: center;">Medium</p>	<p style="text-align: center;">Low</p>
<p style="text-align: center;">GEOLOGY AND SOILS</p>	<p>The proposed project has the potential to result in disturbance and compaction of soils, thus leading to the potential of increased surface runoff and erosion;</p> <ul style="list-style-type: none"> • Vegetation clearing, stockpiling of material and construction activities have the potential to result in soil being windblown, and generating dust related impacts; • Vegetation clearing, stockpiling of material and construction activities, along with high intensity rainfall, have the potential to result in increased surface runoff, erosion and sedimentation of surrounding water resources; and • Disturbance and compaction of soils has the potential to result in the encroachment of alien invasive vegetation and the loss of natural habitat for fauna and flora. 	<p>Appropriate measures must be implemented to minimise the area of soil disturbance and the potential for mobilisation of bare areas (Refer to Appendix P);</p> <ul style="list-style-type: none"> • Vegetation must remain intact where possible to limit high surface runoff and the mobilisation of sediment; • Measures must be taken to cover bare areas during high intensity rainfall; • Rehabilitation and revegetation of bare areas must take place as soon as possible; • Alien invasive vegetation clearing must be ongoing; and • The planting of non-indigenous vegetation must be prohibited. 	<p style="text-align: center;">Negative Direct and Indirect</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Definitely</p>	<p style="text-align: center;">Unlikely</p>	<p style="text-align: center;">Partly</p>	<p style="text-align: center;">Possible</p>	<p style="text-align: center;">Site & Local</p>	<p style="text-align: center;">Site</p>	<p style="text-align: center;">Medium-term</p>	<p style="text-align: center;">Short-term</p>	<p style="text-align: center;">Medium</p>	<p style="text-align: center;">Low</p>

<p>RIVERS AND WETLAND SYSTEMS</p>	<p>Soil erosion and sedimentation of the watercourses; <ul style="list-style-type: none"> • Pollution as a result of runoff entering into the watercourses during the construction phase; • Contamination due to leakage from the slurry lagoons; • Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for fauna and flora; and • Vegetation clearing, stockpiling of material and construction activities have the potential to result in increased surface runoff, erosion and sedimentation of surrounding watercourses. </p>	<p>The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase; <ul style="list-style-type: none"> • Stormwater runoff generated from the proposed piggery establishment must be attenuated. Attenuation measures include sand bags, hessian sheets, silt fences, retention or replacement of vegetation and geotextiles; • Stormwater runoff must not be concentrated, or be allowed to flow down cut and fill slopes without erosion control measures being in place; • Clearing of vegetation during the construction phase must only take place within the area to be developed; • Soft engineering measures, Sustainable Drainage Systems (SuDS) and Level Spreaders are recommended to reduce increased stormwater runoff; • Consideration must be given to water quality, amenity and biodiversity values of water, thus improving the hydrological flow. These include waste recycling, green infrastructure, solar energy, and the implementation of indigenous landscaping; • The use of tanks to harvest rainwater is recommended; • All waste generated during the construction phase must be disposed of appropriately in line with the Environmental Management Programme (Refer to Appendix P); • Effluent from the slurry lagoons must not be allowed to enter into the watercourses without being treated first; • Alien invasive vegetation clearing must be ongoing; and • The planting of non-indigenous vegetation must be prohibited. </p>	<p>Negative Direct and Indirect</p>	<p>Highly likely</p>	<p>Definitely</p>	<p>Fair</p>	<p>Partly</p>	<p>Possible</p>	<p>Site & local</p>	<p>Site</p>	<p>Long-term</p>	<p>Medium-term</p>	<p>High Negative</p>	<p>Low</p>
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FLORA	<ul style="list-style-type: none"> • Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for flora. 	<ul style="list-style-type: none"> • The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase; • Vegetation must remain intact where possible to limit high surface flows and mobilisation of sediment; • Removal of invasive alien vegetation, and rehabilitation and revegetation must be ongoing; • The Alien Invasive Vegetation Management Programme must be implemented (Refer to Appendix P); and • The non-indigenous vegetation must be prohibited. he planting of 	Negative Direct and Indirect	Likely	Definitely	Unlikely	Not possible	Partly	Site & Local	Site & Local	Medium-term	Short-term	High Negative	Low
FAUNA	<ul style="list-style-type: none"> • Soil disturbance has the potential to result in the encroachment of alien invasive vegetation, and the loss of natural habitat for fauna. 	<ul style="list-style-type: none"> • The implementation of the recommended 56 m buffer from the edge of both watercourses will reduce the risk of erosion and sedimentation during the construction and operational phase; and • Vegetation must remain intact where possible to limit disturbance to faunal habitats. 	Negative Direct and Indirect	Likely	Definitely	Unlikely	Not possible	Partly	Site & Local	Site & Local	Medium-term	Short-term	High Negative	Low

9. ENVIRONMENTAL MANAGEMENT PROGRAMME

In terms of the Regulations stated in Appendix 4 of Chapter 8 of the National Environmental Management Act (NEMA, Act No. 107 of 1998) of GNR 326 (2014, as amended – 2017) an Environmental Management Programme (EMPr) has been compiled which contains guidelines for ensuring that all activities associated with the proposed project are carried out in an environmentally responsible and acceptable manner. Specific management objectives and mitigation measures have been specified for the entire duration of the proposed project.

The EMPr is based on the principles of the NEMA as well as the recommendations made in this Report. It identifies roles and responsibilities of management personnel on site, and will be used as a framework for environmental compliance monitoring and reporting, should the proposed project be authorised.

An EMPr is a legally-binding document that contains guidelines with which land owners and contractors must comply, and which must be strictly implemented and regularly monitored. If this is done, it is likely that the majority of the potentially adverse impacts associated with proposed project can be minimised or prevented. An Environmental Control Officer (ECO) must be appointed by the Applicant to ensure compliance with the EMPr during the construction and operational phase. Should non-compliance occur, this must be brought to the attention of the Department of Economic Development, Tourism and Environmental Affairs (DEDTEA), who will conduct the required prosecution procedure.

Specific management objectives and mitigation measures are specified in the EMPr for the entire duration of the operation, including the following stages:

- Construction activities;
- Operation of the activity;
- Rehabilitation of the environment; and
- Closure (decommissioning), where relevant.

10. POSITIVE AND NEGATIVE IMPLICATIONS OF THE PROPOSED PROJECT

POSITIVE SUMMARY:

- The proposed project will result in the generation of employment opportunities during both the construction and operational phase. This will in turn result in income generation, skills development and improved quality of life;
- The skills generated will benefit employed people in the long-term when they seek employment elsewhere;
- It will contribute positively to the local economy and the social environment through spending of capital local businesses;
- Local businesses and unemployed people in the immediate area will be considered first;
- The increased earning potential will allow more people to afford agricultural products, especially pork products, which will result in a strong, healthy, working population;
- It will contribute to the availability and affordability of pork products which will lead to a decrease in food insecurity, poverty and malnourishment rates;
- Is directly in line with the municipal goals and objectives by investing in and placing emphasis on the agricultural sector;
- No heritage sites, features or graves were identified on the property;
- The property is identified to have a moderate fossil sensitivity and is thus unlikely to have an impact on paleontological resources;
- The proposed project will form part of the existing farm which is surrounding by commercial agricultural lands, thus it will blend in with the surrounding area;
- It will result in minimal traffic generation and traffic related impacts;
- Noise and dust related impacts on surrounding properties is likely to be minimal;
- Will result in ongoing rehabilitation, revegetation and alien invasive vegetation clearing on the property;
- Will ensure the farms long-term sustainability through livestock production; and
- Will result in the land currently available on the property to be utilised to its advantage.

NEGATIVE SUMMARY:

- Excessive speed on the roads poses a threat to both road users and animals;
- Potential exists for potential job seekers to trespass onto surrounding properties;
- Vegetation clearing, stockpiling of material and construction activities have the potential to result in increased surface runoff, erosion and sedimentation of surrounding watercourses;
- Construction activities have the potential to result in soil being wind-blown and generating dust nuisances;
- Potential exists for high intensity rainfall to cause soil erosion;
- The proposed project has the potential to result in disturbance and compaction of soils, thus leading to the potential of increased surface runoff and erosion;
- There is potential for contamination of surrounding watercourses should the sewage system overflow or not be managed correctly; and
- There is potential for crime in the area to increase.

10.1 POSITIVE AND NEGATIVE IMPLICATIONS OF THE IDENTIFIED ALTERNATIVES

For this project, a variety of different alternatives types were investigated.

DO-NOTHING

The “do nothing” option would mean that the proposed piggery establishment on Lamington Farm will not be undertaken and the farm will remain in its current state.

POSITIVE

The negative impacts that may result from the proposed project, including potential for noise, odour and dust related impacts, encroachment of alien invasive vegetation, and the loss of natural habitat for fauna and flora, erosion, sedimentation and contamination of surrounding watercourses, water pollution and impacts on downstream users, will not apply.

NEGATIVE

The following will not be realised:

- Job creation, skills development and income generation during the operational phase, for those associated with the development;
- A positive contribution to the local economy through the spending of capital at local businesses;
- Skills transfer during the construction phase, which will benefit employed people in the long-term when they seek employment elsewhere;
- Increased earning potential which will allow for more people to afford agricultural products which will result in a strong, healthy, working population;
- A larger portion of the population to have agricultural products (especially pork products) in their diets, which will promote health and wellness;
- The availability and affordability of pork products which will help lead to a decrease in food insecurity, poverty and malnourishment rates;
- On-going rehabilitation, revegetation and alien invasive vegetation clearing of the property; and
- The land currently available on the property to be utilised to its full potential.

ALTERNATIVE TYPE

POSITIVE

The property has historically been used for agricultural activities and pig farming, and as such the following activity alternatives were not considered feasible and not investigated further: macadamias, sugar cane, high value crops and poultry farming.

NEGATIVE

The proposed piggery establishment is associated with several potential negative impacts which include, noise, dust, lighting and odour nuisances, impacts on fauna and flora, contamination of watercourses, increased stormwater runoff and potential for erosion and sedimentation of surrounding watercourses etc.

There is potential for these negative impacts to occur if the conditions included in the Environmental Authorisation and EMP are adhered to.

ALTERNATIVE LAYOUT OR DESIGN

Layout:

POSITIVE

The preferred layout is in line with all the Specialist Study recommendations.

NEGATIVE

None.

Design:

POSITIVE

The proposed piggery establishment will be designed with state of the art technology and infrastructure, which will ensure compliance with international best practice standards in terms of improving pig welfare, minimal noise and odour nuisances, pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production.

NEGATIVE

None

ALTERNATIVE TECHNOLOGY:

POSITIVE

The proposed piggery establishment will comprise state of the art technology and infrastructure, which will ensure compliance with international best practice standards in terms of pig welfare, minimal noise and odour nuisances, pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production.

NEGATIVE

None.

ALTERNATIVE OPERATIONAL ASPECTS:

POSITIVE

The proposed piggery establishment will operate to ensure compliance with international best practice standards in terms of pig welfare, minimal noise and odour nuisances, pests, improved effluent and waste management, water use and electricity efficiency, and effective pork production.

NEGATIVE

None.

EAP RECOMMENDATIONS & CONCLUSION

The EAP wishes to reiterate that the information provided in this Report is true and based on factual information provided by the Specialists and I&APs.

Signed:

Date:

RECOMMENDATIONS

SPECIALIST STUDIES

All recommendations contained within the Specialist Studies must be adhered to, where relevant.

EFFLUENT

- The septic tank must have a capacity of at least four hours of the expected peak flow of domestic effluent;
- The septic tank must be constructed on the lower portion of the property, and the overflow pipe must gravitate via a 110 mm uPVC sewer pipe laid at a gradient of at least 1:6;
- The slurry dams will have a sufficient storage for 60 days of full operation from the proposed piggery expansion.
- The slurry dams being lined, it must have a 500 mm freeboard (as defined as the elevation difference between the crest of the embankment and the full supply level of the slurry dams).
- The design and construction of the effluent system must comply with Section P and Q of SANS 10400, where applicable; and
- The position of the effluent system must be indicated on the building plans for approval by the Dr Nkosazana Dlamini Zuma Local Municipality.

STORMWATER MANAGEMENT

- Rainwater harvesting off all proposed buildings and roofed areas must be encouraged;
- Clean and contaminated stormwater must be kept separate;
- All chemicals, cement, fuels and hazardous substances used during the construction phase must be kept in a controlled and bunded area;
- The stormwater attenuation pond must comprise a 300 mm silt trap; and
- All stormwater infrastructure must be regularly monitored during both the construction and operational phase.

HERITAGE

The developer must cease all work immediately should any heritage resources be discovered during the course of the proposed project. Amafafa must be contacted.

GENERAL

The approved EMPr must be strictly enforced. It is fundamental that the Waste Management Plan, Fly Management Plan and Alien Invasive Vegetation Management Programme be implemented.

- During the proposed project, monthly monitoring by an independent Environmental Control Officer (ECO) must be undertaken;
- The proposed project must operate in line with the National Health Act (Act No. 61 of 2003), and the Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972);
- Labour must remain within the boundaries of the proposed piggery at all times; and
- Construction must be limited to regular working hours (Monday to Saturday, 07h00 to 17h00).

CONCLUSION

The EAP concludes that no fatal-flaws have been identified during the Basic Assessment Process, and, provided the EMPr and recommendations made in this Report are strictly adhered to, there should be no significant, detrimental impacts on the environment.

APPENDIX A: ENVIRONMENTAL ASSESSMENT PRACTITIONERS CV

APPENDIX B: APPLICATION FORM

APPENDIX C: NEWSPAPER ADVERTS



**INVITATION TO PARTICIPATE
EL RANCHITO FARM
ENVIRONMENTAL IMPACT
ASSESSMENT**

El Ranchito Farm proposes to establish approximately 90ha of new no-till croplands in six blocks varying in extent from 10 to 25ha on the agricultural property Farm Lot FP198 No. 8759 FS, Dr. Nkosazana Dlamini- Zuma Local Municipality, Harry Gwala District Municipality.

Environmental authorisation following a scoping-environmental impact assessment process is required in terms of the National Environmental Management Act, 1998, and the 2014 EIA Regulations as amended.

The Independent Environmental Advisor has been appointed as the independent environmental assessment practitioner (EAP) to undertake the application and associated public participation process.

Should you wish to obtain additional information about the proposed transformation of veld to crop lands, register as an Interested and Affected Party (I&AP), or comment on the project please contact The Independent Environmental Advisor by email: sarah.wine@iuncapped.co.za; fax: 086 242 2646; post: PO Box 586 HOWICK 3290; or tel: 071 975 4865, attention Sarah Allan.

Please note that the Draft Scoping Report (DSR) provides more information about the project and will be available for review and comment from **27 January 2021 to 26 February 2021**. A hard copy will be available at the Underberg Library located at 3 Old Main Road Underberg and the farm office of El Ranchito Farm.

District Security
Co-Ordinator
kevin@com-watch.co.za
033-7021117
0827841818

**When you wear a mask
you are saying
I respect my neighbors.**

**When you wear a mask
you are saying I respect
nurses and doctors.**

**When you wear a mask
you are saying I respect
other people.**

ELA STOCK SALE 5 JANUARY 2021	
QTY SUPPLIED	239
QTY SOLD	232
PERCENTAGE	97%
MAXIMUM PRICE	R21 100
MINIMUM PRICE	R3 400
AVERAGE PRICE	R10 800

DISCLAIMER

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DON BLAKEY
033 7021110 or 7021835 or 0823421387

SSK Consulting (Pty) Ltd

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED EXPANSION OF THE PIGGERY AND ASSOCIATED INFRASTRUCTURE

Notice is hereby given in terms of Regulation 41 of GNR 326 of the National Environmental Management Act (No. 107 of 1998), EIA Regulations 2014 amended 2017, of application to Department of Economic Development, Tourism and Environmental Affairs for Environmental Authorisation.

The project involves a proposed Expansion of the Piggery and Associated Infrastructure on Portion 6 of Farm Lamington, at the Dr Nkosazana Dlamini Zuma Local Municipality within the Harry Gwala District details are as follows:

Proponent: Sibakhulu Enterprise (Pty) Ltd, Location: Portion 6 of Farm Lamington along D125 district road, Underberg. Environmental Assessment Practitioner (EAP): Ms Bongeka Mthanti, SSK Consulting (Pty) Ltd Contact Details: 071 947 4354 Email: mthantibee@gmail.com.

All Interested and Affected Parties, neighbouring landowners and other stakeholders are invited to register and submit their matter of interest in the project with the EAP. Further engagements will be made with register IAPs.

**ISAZISO SESICELO SOKUGUNYAZWA
NGOKWEZEMVELO (EA) MAYELANA NE PROJETHI
YOKUFUYWA KWEZINGULUBE.**

Lapha kukhishwa isaziso sesicelo sokugunyazwa ngokwezemvelo (EA) ngokwemibandela yomthetho iNEMA EIA yango 2017, sizohanjiswa Kumnyango wezoku Thuthukiswa kolnotho, ezokuvakasha kanye nezemvelo wakwa Zulu Natali.

Kuhlongozwa ngokwakhiwa kwezindlu zezingulube kanye nokugunywa kwazo Indawo: Portion 6 of Farm Lamington along D125 district road, Underberg. Environmental Assessment Practitioner (EAP): Ms Bongeka Mthanti, SSK Consulting (Pty) Ltd Contact Details: 071 947 4354 Email: mthantibee@gmail.com. Labo abanethisekelo kanye nalabo abathintekayo abafisa ukwazi kabanzi ngaloluhele bayaminywa ukuba babhalise kuleminingwane engasenhla.

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JANUARY / FEBRUARY 2021

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UNDERBERG

UNDERBERG

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Paula Bullimore	079 491 0101
Sue Preston	084 880 8701
Jade Lloyd	072 184 2121

PAM GOLDING

PROPERTIES

APPENDIX D: SITE NOTICES







APPENDIX E: BACKGROUND INFORMATION DOCUMENT (BID)

**APPENDIX F: PRE-APPLICATION MEETING AGENDA, ATTENDANCE REGISTER
AND MINUTES**

APPENDIX G: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

Annexure H

A BIODIVERSITY ASSESSMENT FOR FARM LAMINGTON

The National Environmental Management: Biodiversity Act (Act 10 of 2004) defines biodiversity as: “the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems.” Thus the term biodiversity covers everything from the smallest organisms to biophysical landscapes, encompassing all species of plants and animals, ecosystems, landscapes, water and soil and the networks, links and ecological and evolutionary processes that makes life possible and sustainable.

Biodiversity also provides an important basis for social and economic growth and development by providing the biophysical landscape and ecological processes essential for human socio-economic well being, such as commercial and subsistence agriculture (food security), industrial materials, fishing, tourism, recreation and both commercial and indigenous medicinal use and development. Loss of biodiversity therefore places the economy and our quality of life at risk, particularly for those who are already living under adverse socio-economic conditions, and relying heavily on the environment for daily subsistence. The loss of biodiversity also reduces the scope of possibilities for future generations to overcome socio-economic challenges. A Biodiversity Assessment was conducted for the proposed project expansion. It was observed and concluded that there was no critical biodiversity as the portion on which the expansion of the piggery is proposed has been always dry, without any coverage e.g grass or any indigenous vegetation.

Biophysical overview of the Harry Gwala District Municipality

Climate

The Harry Gwala District falls within a summer rainfall area with a mean annual rainfall ranging from 900 to over 1 400mm (Sisonke District Municipality, 2008). The District's rainfall results to a large extend from cold fronts, moving in from the south-west, which are often preceded by hot, desiccating, dry “Berg” winds from the north and north-west. The temperatures within the District vary, driven by the varying altitudes which range from 3500m along the Drankensburg to 600m in the south east of the District.

The Nkosazane Dlamini Zuma Municipality which is located closer to the Drankensburg has a wider temperature range, with temperatures up to mid 30oc in summer and in winter the western portion often drops below 0c with the eastern portion being slightly warmer and seldom dropping below 50c. In winter severe frost and snowfalls can occur (Ingwe Municipality, 2011).

Topography

The highly variable topography characteristic of the District creates biophysical habitat and micro climatic conditions which support a range of biodiversity. North facing slopes are generally warmer and drier, supporting habitat types such as grasslands. South facing slopes, escarpments and sheltered kloofs on the other hand tends to be cooler and wetter, commonly providing conditions favourable for supporting indigenous forest. This mosaic of habitat provides opportunity for a diversity of biota with different habitat requirements to exist within relatively smaller areas, in comparison to regions with flat topography.

Biological characteristics

Description of habitats and vegetation communities

The Harry Gwala District traverses five biomes, namely: Forest, Fynbos, Grassland, Savanna and Wetland and contains 28 vegetation types. The above map (Figure 2-8) shows the historical spatial representation of these vegetation types (Scott-Shaw & Escott, 2011b) . The Table 2-2 further identifies the conservation status of the vegetation types and shows the historical extent of each of the vegetation types (Scott-Shaw & Escott, 2011b) as well as the remaining extent of vegetation types based on the 2008 land cover and modification of the District (EKZNW, 2011c).

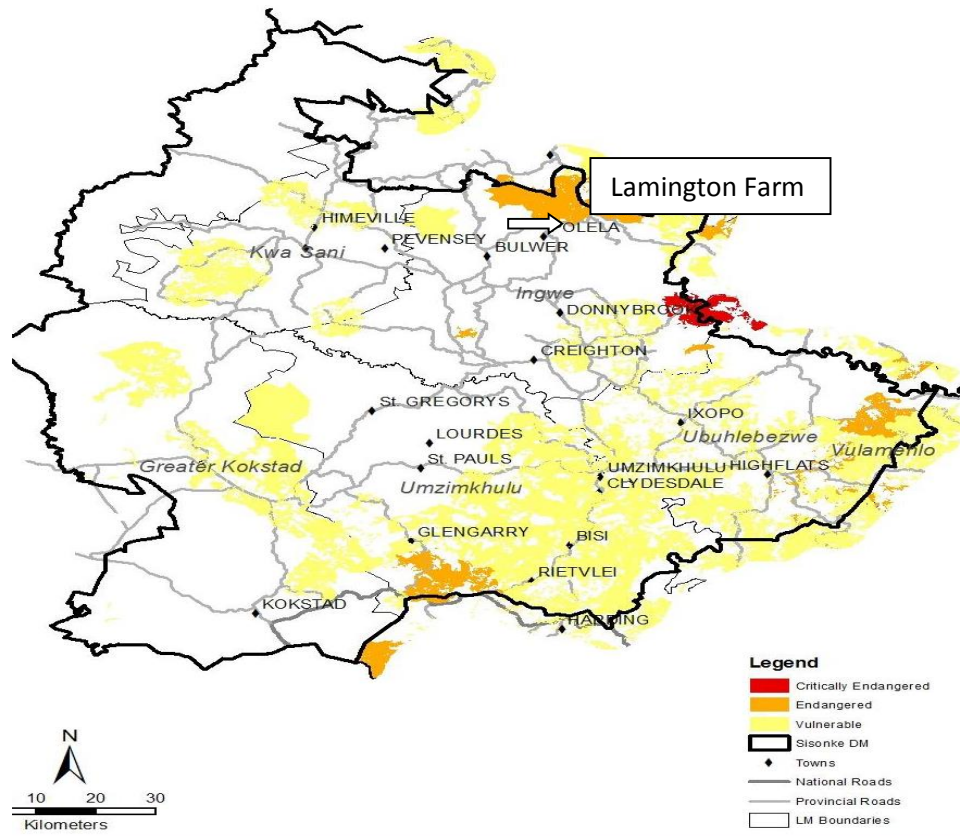


Figure 1.1 Map showing Threatened ecosystem within the area.

Threatened and Endemic Flora and Fauna

The conservation status of species for all taxonomic groups is based on categories determined by the International Union for Conservation of Nature (IUCN) (IUCN, 2011), namely:

Critically Endangered (CR) – the species is considered to be facing an extremely high risk of extinction in the wild, based on IUCN criteria. Endangered (EN) – the species is considered to be facing a very high risk of extinction in the wild, based on IUCN criteria. Vulnerable (VU) – the species is considered to be facing a high risk of extinction in the wild, based on IUCN criteria. Near Threatened (NT) – when evaluated against IUCN criteria, does not qualify for a Threatened category but is close to qualifying for or is likely to qualify in one of those categories in the near future. Data Deficient (DD) – there is inadequate information regarding the species’ population size, distribution or threats for an assessment to be made. According to figure 1.1, Farm Lamington falls outside the areas labelled as critically endangered.

World Heritage Sites

World Heritage Sites are cultural and or natural sites of outstanding universal value that are of international importance. Such sites are nominated and listed in terms of the Convention Concerning the Protection of the World Cultural and Natural Heritage which is managed by UNESCO (United Nations Educational, Scientific and Cultural Organisation) (About World Heritage).

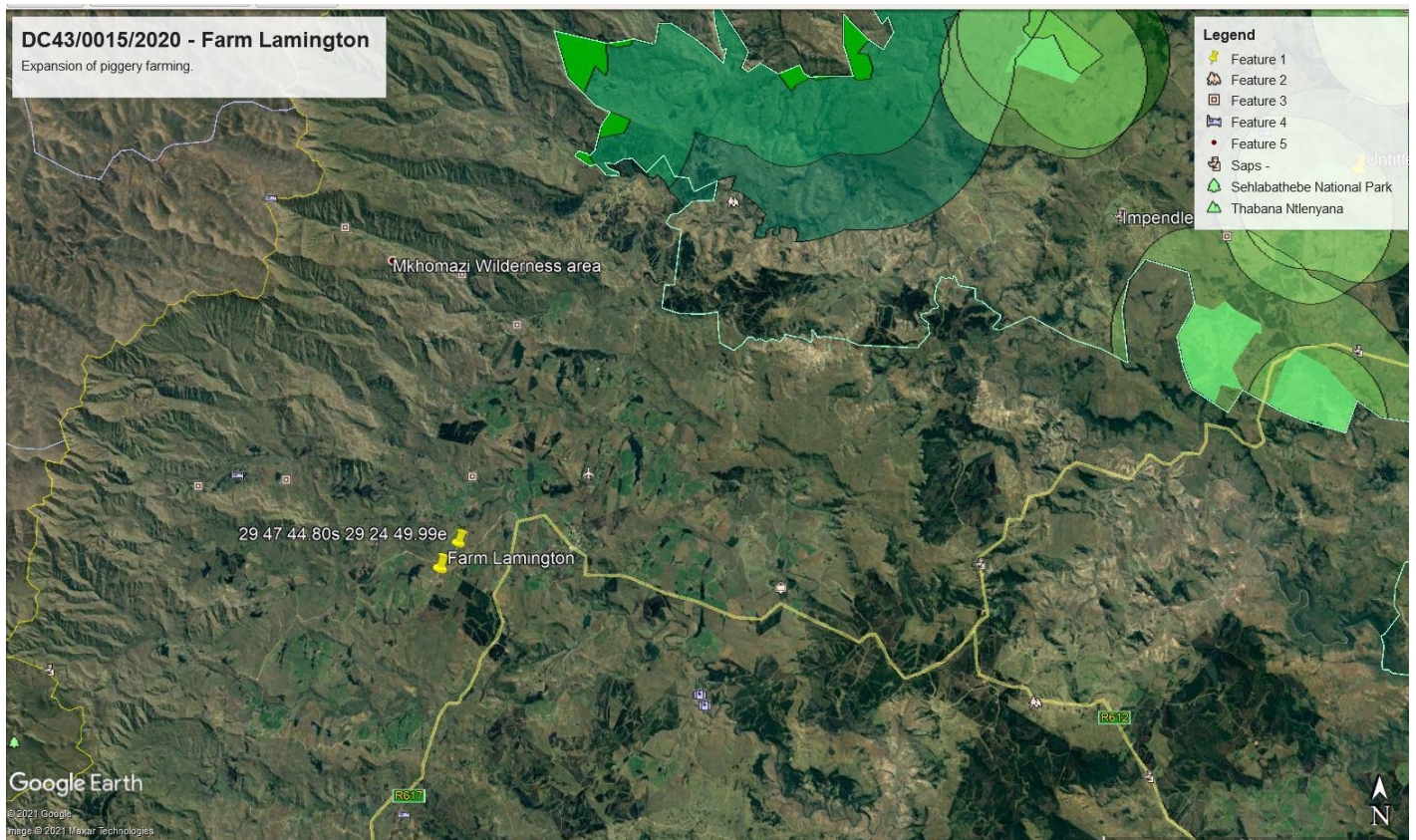


Image 1.1

According to the Image 1.1, the farm lamington falls outside the protected areas and will not have any impacts on the surrounding natural biodiversity of Sehlabathebe National Park.

Conclusion and recommendations

A Biodiversity Assessment was conducted for the proposed project. Due to the transformed nature of the proposed development site, it is unlikely to have impacts on faunal. Care should be taken not to unnecessarily clear or destroy natural vegetation and where possible the rehabilitation of transformed areas and restoration of degraded natural veld should take place in order to improve the ecological health of the floristic component on the property. Development and planned activities should therefore be

planned in such a way that totally transformed areas are chosen for major developments and natural veld and especially any highly sensitive areas are avoided as far as possible. These natural areas may be utilised and managed as areas of biodiversity conservation.

Based on the data presented in this report as well as observations made during the survey, the following is recommended in conclusion: Take note of and as far as possible comply with the mitigation measures and recommendations given in this report. During the planning, operational and rehabilitation phases all recommendations made and concerns raised in this document should be taken into consideration.

From a biodiversity point of view, there are no major objections against the proposed prospecting activities, as long as mitigation measures and recommendations are seriously considered and implemented, and as long as due diligence is practiced in terms of environmental legislation and other relevant policies and guidelines.