Final Basic Assessment Report

for

# EAGLES VALLEY POULTRY ABATTOIR REF NO. NWP/EIA/05/2024

Prepared by:

Bucandi Environmental Solutions



Project Manager:

Dr Hélen Prinsloo (D. Tech) (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP) EAPASA 2022/5086

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## **1.** INTRODUCTION AND BACKGROUND

## 1.1 Background

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day. It is located on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The proposed project triggers a Basic Assessment for certain listed activities under Listing 1 of NEMA (National Environmental Management Act, 1998). Bucandi Environmental Solutions (Bucandi) was requested by Eagles Valley Poultry to conduct a Basic Assessment as part of the application for environmental authorisation.

## **1.2 Details of the project proponent**

Company name:	Eagles Valley Poultry (PTY) Ltd.
Physical address:	Plot B 48 Remhoogte Rd Skeerpoort 0232
Postal address:	P.O. Box 43 Skeerpoort 0232
Contact person:	Mr. Rassie van der Westhuizen
Telephone number:	083 469 8163
Email address:	rassie@eaglesvalley.co.za

# 1.3 Details of Environmental Assessment Practitioner (EAP)

Company name:	Bucandi Environmental Solutions	
Reg. No:	2009/087537/23	
Physical address:	13 Krom Street Potchefstroom 2520	
Postal address:	P. O. Box 317 Viljoenskroon 9520	
Project coordinator:	: Dr Hélen Prinsloo	
Telephone number:	076 682 4369	
Email address:	helen@bucandi.co.za	
Bucandi Environmental Solutions		

Qualification:	D. Tech (Conservation Management)
Experience:	15 years
Affiliation:	SACNASP <i>Pri.Sci. Nat</i> 400108/11 EAPASA 2022/5086
Assistant:	Marika Smook
Telephone number:	076 422 3484
Email address:	info@bucandi.co.za

Please see Appendix G for a copy of the Curriculum Vitae for the EAP.

## 1.4 Details of specialists

No specialists have been used for this project at this time.

## 2. LOCATION OF PROPOSED ACTIVITY

The study area is located 19.5 km southwest of Hartbeespoort in the Northwest Province within the Madibeng Local Municipality and Bojanala Platinum District Municipality (Appendix A). More specifically it is located on Portion 5 of the farm Johannes 438 JQ at 25°49'28.98" S; 27°43'50.23"E (Appendix A). The R560 between Broederstroom (north) and Hekpoort (south) runs through the site with a farm road providing access to the site. See Appendix A for the locality map and layout plans.

21-digit Surveyor General code	T0JQ000000043800005
Physical address and farm name	Portion 5 of the farm Johannes 438 JQ
GPS coordinates	25°49'28.98" S; 27°43'50.23" E

#### 3. SCOPE OF ACTIVITY

## 3.1 Listed activities triggered

The proposed activity triggers the following Listed Activities in terms of Listing Notice 1 of Government Notice No. R327 published in Government Gazette No. 40772 of 7 April 2017 under the National Environmental Management Act, Act 107 of 1998:

(ACTIVITY NO. 38) The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than (i) 50 poultry;

# 3.2 Description of activity

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day The need for a Basic Assessment is triggered by Listing 1; activity 38(i) in GN R327 dated 4 December 2014 and amended on 07 April 2017. The expansion will not involve an expansion in the building footprint. The site is located on an area that has an existing poultry abattoir. The project will entail the following:

- Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day.
- Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m<sup>2</sup> in total) will be erected for additional cool storage. This will take place in an area that is already paved.
- The footprint of the development will not expand.
- Due to upgraded technology, waste water will be reduced from 1 000 m<sup>3</sup> to 700 m<sup>3</sup> per day.

# 3.3 National Environmental Management Act

Title of legislation, policy or guideline: Administering authority: Date:

		1000
National Environmental Management	Department of Economic	1998
Act, Act No. 107 of 1998.	Development, Environment,	
Listing 1 of regulation 327	Conservation and Tourism	
Listing 1 of regulation 327 promulgated under Chapter 5 of the		1998
		1000
National Environmental Management		
Act (NEMA, Act 107 of 1998) in		
Government Gazette 40772. Listed		
activity 40(ii) & (iv)		
National Water Act, Act No. 36 of	Department of Water Affairs	
1998.		1000
1990.		1998
Conservation of Agricultural	North West Department:	
Resources Act, Act No. 43 of 1983	Agriculture and Rural	
	Development	1983
Air Quality Act, Act No. 39 of 2004.	Bojanala Platinum District	
Reg. 983 published on 22 November	Municipality	2004
2013 in GN 37054		2013
		2013
	South African Haritaga	
Heritage Act, Act No 25 of 1999.	South African Heritage	
Tientage Act, Act No 20 01 1999.		
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	Resources Act	
Meat Safety Act, Act 40 of 2000	Department of Agriculture, Forestry and Fisheries	1999
National Environmental Management:		2000
Waste Act, Act No. 59 of 2008 Listed Activities Reg. 921 published on 29 November 2013 in GN 37083	Department of Economic Development, Environment, Conservation and Tourism	2008
Occupational Health and Safety Act,		
Act 85 of 1993		1993
Noise regulation, 2003	Department of Labour	2003
Environmental regulations for workplaces, 1987	Department of Health and Safety	1987
Facility regulations,1990	Department of Labour	1990
General Health and Safety	Department of Labour	1986
Regulations, 1986	Department of Labour	
Electrical Installation Regulations, 2009. Electrical Machinery Regulations,	Department of Labour	2009
1988.	Department of Labour	1988
Construction Regulations, 2014		2014
	Department of Labour	

## 4. NEED AND DESIRABILITY OF THE PROJECT

# 4.1 Need for operation of the facility

The facility will provide increased food availability; in particular poultry products. Poultry is highly desirable as a food item across all income groups in South Africa. Internationally production of poultry has increased significantly over the past few years in line with increased consumer demands for production of poultry and expectations are that consumer demand will continue to increase. Due to overcrowding of present facilities, lack of additional facilities and therefore the potential for increased biological risk, suppliers have embarked on a process of establishing new facilities in order to overcome these problems and ensure the long-term sustainability and viability of the industry. The socio-economic value of the project will indirectly have a positive impact on the immediate area as well as cater for the increasing demand for poultry in the Northwest Province and nationally. At least 40 temporary employment opportunities will be created during the development and construction phase. A total of 110 people will be permanently employed during the operational phase of the activity to accommodate the increase in shifts. Contractors are employed during the construction phase and additional employment opportunities are therefore created.

# 4.2 Preferred location

The R560 between Broederstroom (north) and Hekpoort (south) runs through the site with a farm road providing access to the site. It is located within and area that is classified as Terrestrial Critical Biodiversity Area 2, however it has been completely transformed by the construction and operation of the current abattoir. The upgrade will take place entirely within the footprint of the existing abattoir. The slope on the site is roughly 1:54 (see complete site description in Section 5.1). No additional services are necessary for the upgrade.

## 5. **PROJECT ALTERNATIVES**

## 5.1 Property or location alternatives

See Appendix B for site photographs and Appendix C for the site plans.

## Site alternative 1 (preferred site)

The R560 between Broederstroom (north) and Hekpoort (south) runs through the site with a farm road providing access to the site. It is located within and area that is classified as Terrestrial Critical Biodiversity Area 2, however it has been completely transformed by the construction and operation of the current abattoir. The slope on the site is roughly 1:54 (see complete site description in Section 5.1). No additional services are necessary for the upgrade

## 5.2 Activity alternatives

#### Preferred activity

Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day. Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m<sup>2</sup> in total) will be erected for additional cool storage. This will take place in an area that is already paved. The footprint of the development will not be expanded. Due to upgraded technology, waste water will be reduced from 1 000 m<sup>3</sup> to 700 m<sup>3</sup> per day.

## 5.3 Design of layout alternatives

No layout alternatives are being considered.

## 5.4 Technology alternatives

No technology alternatives were considered for the proposed project.

## 5.5 Operational alternatives

No operational alternatives were considered for the proposed project.

## 5.6 The "no-go" activity alternative

The site is currently used as a poultry abattoir and will continue as such.

## 6. PUBLIC PARTICIPATION PROCESS

Please see Appendix D1 for a copy of the newspaper notice that was placed in "Beeld" on 9 February 2024.

Please see Appendix D2 for a photo of the notices placed at the site.

Please see Appendix D3 for the notifications that was sent to all the neighbours as well as the Local and District Municipalities and Department of Water and Sanitation on 12 September 2024.

Please see Appendix D4 for the Comments and Responses Report.

No comments were received from the I&APs.

## 7. ENVIRONMENTAL ISSUES AND POSSIBLE IMPACTS

## 7.1 Geographical and Bio-physical environment

#### 7.1.1 Gradient of the site

The proposed site is located between 1 220 mamsl and 1 230 mamsl with a slight slope towards the northwest (gradient = 1:54).

## 7.1.2 Soils

The farm is located entirely on landtype Ea72. The soils associated with this landtype include the following:

Rock - 4.1%

Stream beds – 0.5%

0.11/		<u></u>		
Soil type	Depth (mm)	%	% Clay in	% Clay in
		Occurrence	A horizon	B horizon
Mispah Ms10, Williamson Gs16,	150 - 300	14.6	15 - 35	
Trevanian Gs17				
Glendale Sd21, Shortlands	300 - 900	52.8	25 - 50	30 - 60
Sd22, Kinross Sd20				
Makatini Hu37, Shorrocks Hu36	300 - 900	15.5	20 - 40	25 - 50
Rensburg Rg20, Gelykvlakte	500 - 800	6.6	40 - 60	
Ar20, Glengazi Bo31, Stanger				
Bo11				
Sibasa We13	300 - 500	3.8	25 - 35	35 - 50
Swartland Sw31, Nyoka Sw41	250 - 350	1.1	20 - 25	35 - 55
Longlands Lo21	600 - 800	0.5	6 - 15	20 - 35
Lindley Va41	250 - 350	0.5	20 - 25	35 - 55

The landtype is dominated by soils with medium to high clay content in the A horizon. The majority of soils (92.9%) has a medium to high clay content with 6.6% having a high content and only 0.5% showing a low clay content. A clay percentage above 40% is generally considered to be high, while clay content between 20% and 40% is considered medium. Soils with a high clay content in the A horizon are typically associated with proximity to water bodies and / or a shallow water table.

The development is not likely to have any impact on soils as no excavation will take place. The development entails the upgrade of machinery inside the building and the construction of two small, panelled buildings (7 m x 4 m and 11 m x 3 m respectively) on an area that is already paved.

## 7.1.3 Geology

Geology for landtype Ea72 typically consists of shale and slate of the Silverton Formation, with many diabase sills. The footslopes and lower portions of the midslopes are covered by mixed colluvium.

## 7.2 Biological attributes

## 7.2.1 Groundcover and vegetation

The farm (25.39 ha) is situated entirely on historical Moot Plains Bushveld. The majority of the farm (21.23 ha, 84%) has been completely transformed by cultivation of crops (18.07 ha, 71%), the construction and operation of the existing abattoir (2.96 ha, 12%) and staff housing (2 002.79 m2 / 0.2 ha, < 1%). The remainder of the farm (4.18 ha, 16%) still contain the original vegetation type and falls withing Terrestrial Critical Biodiversity Area (CBA) 2 and Aquatic Ecological Support Area (ESA) 1.

Amersfoort Highveld Clay Grassland is ranked as "Vulnerable" in terms of conservation status and forms part of the Mesic Highveld Grassland Bioregion in the Grassland Biome. It covers an area of 3 896.55 km<sup>2</sup>, mainly in Mpumalanga and KwaZulu-Natal Provinces. It extends in a north-south band from just south of Ermelo, down through Amersfoort to the Memel area in south. It occurs at an altitude between 1 580 and 1 860 mamsl. It is rated Vulnerable with 75.5% remaining and a conservation target of 27%. None of this vegetation type is currently protected. Some 25% of unit is transformed, predominantly by cultivation (22%) and the area is not suitable for afforestation. Silver and black wattle (*Acacia* species), and *Salix babylonica* invade drainage areas. Erosion potential is very low (57%) and low (40%).

All upgrades will take place within the footprint of the existing site. The proposed development will therefore have no impact on this vegetation type.

Moot Plains Bushveld is ranked as "Vulnerable" in terms of conservation status and forms part of the Central Bushveld Bioregion in the Savanna Biome. It covers an area of 2 900.82 km<sup>2</sup>, mainly in the Northwest and Mpumalanga Provinces. The main belt occurs immediately south of the Magaliesberg from the Selons River Valley in the west through Maanhaarrand, filling the valley bottom of the Magalies River, proceeding east of the Hartebeestpoort Dam between the Magaliesberg and Daspoort mountain ranges to Pretoria. It also occurs as a narrow belt immediately north of the Magaliesberg from Rustenburg in the west to just east of the Crocodile River in the east, as well as south of the Swartruggens - Zeerust line. It occurs at an altitude between 1 050 and 1 450 mamsl. It is rated Vulnerable with 72.5% remaining and a conservation target of 19%. It is currently poorly protected with less than 13% statutorily conserved mainly in the Magaliesberg Nature Area (Magaliesberg Biosphere). Approximately 28% has been transformed, mainly by cultivation and urban and built-up areas. There are very scattered occurrences to sometimes dense patches in places of various alien plants including Cereus jamacaru, Eucalyptus species, Jacaranda **Bucandi Environmental Solutions** Page | 7

*mimosifolia, Lantana camara, Melia azedarach* and *Schinus* species. Erosion is mainly very low to low, but moderate in some areas.

## 7.2.2 Biodiversity classification

The farm contains 7.71 ha classified as Terrestrial CBA 2, overlapping with Aquatic ESA 1. It should be noted, however, that 3.53 ha of this has been completely transformed and only 4.18 ha remain along the northeastern boundary. The existing site is located on 2.57 ha of land the falls within this classification. The farm also contains 17.67 ha classified as Terrestrial ESA 2 overlapping with Aquatic ESA 2. All of the land that falls within the classification has been completely transformed, including 0.39 ha of the existing abattoir site.

## 7.2.3 Sensitive areas

The site is located within the Transition Zone of the Magaliesburg Biosphere. The existing footprint coincides with CBA 2 and ESA 1. The Magalies River is located to the north of the site, and the site falls outside of the 500 m river buffer zone. There are no other wetlands within a 1 km radius. It should also be noted that the upgrade will take place entirely within the footprint of the existing abattoir. It will involve the upgrade of machinery inside the abattoir and the addition of two small, panelled buildings on an area that is already paved.

# 7.2 Human environment

## 7.2.1 Cultural heritage

There are no artefacts of cultural or heritage importance at the site. If any artefacts are discovered construction will seize and a Heritage Specialist will be contacted.

## 7.2.2 Socio-economic environment

## Activity alternative 1 (preferred activity)

What is the expected capital value of the activity on completion?	R 100 000	00.000
What is the expected yearly income that will be generated by or as	R 578 869	200.00
a result of the activity?		
Will the activity contribute to service infrastructure?	YES	NO
•	Х	
Is the activity a public amenity?	YES	NO
		Х
How many new employment opportunities will be created in the	30	•
development phase of the activity?		
What is the expected value of the employment opportunities during	R 1 728	000.00
the development phase?		
What percentage of this will accrue to previously disadvantaged		95%
individuals?		
How many permanent new employment opportunities will be	110	
created during the operational phase of the activity?		
What is the expected current value of the employment	R 9 306	168.00
opportunities during the first 10 years?		

0%

What percentage of this will accrue to previously disadvantaged 100% individuals?

No-go alternative		
What is the expected capital value of the activity on completion?	R0	
What is the expected yearly income that will be generated by or as a result of the activity?	R0	
Will the activity contribute to service infrastructure?	YES	NO
		Х
Is the activity a public amenity?	YES	NO
		Х
How many new employment opportunities will be created in the	0	
development phase of the activity?		
What is the expected value of the employment opportunities during the	R0	
development phase?		
What percentage of this will accrue to previously disadvantaged		0%

What percentage of this will accrue to previou individuals? How many permanent new employment opportunities will be created 0

during the operational phase of the activity? What is the expected current value of the employment opportunities **R**0 during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

## 7.2.3. Waste

#### Activity alternative 1 (Preferred alternative)

#### **Construction Phase**

An estimated 2.25 m<sup>3</sup> of solid waste will be produced per month during the Construction Phase. Waste is expected to be limited to packaging materials (shrink wrap, cardboard) and litter generated by the construction staff. It will also contain leftover building materials such as cement or concrete, and PVC panelling. All the leftover building materials will be removed by the building contractor. Waste will be recycled as far as possible. Nonrecyclable waste will be sorted into different types and disposed of at a suitably licensed waste disposal facility.

Construction phase solid waste will be disposed of at the nearest licensed waste disposal site. Waste considered unsuitable for municipal waste disposal sites will be disposed of at a suitably licensed hazardous waste disposal facility (e.g. WasteTech).

#### **Operational Phase**

An estimated 42.5 m<sup>3</sup> of solid waste will be produced per month during the Operational Phase. Solid waste will be disposed of at the nearest licensed waste disposal. Waste considered unsuitable for municipal waste disposal sites will be disposed of at a suitably licensed hazardous waste disposal facility (e.g. WasteTech). Any general waste such as litter generated by staff will be disposed of at the nearest licensed waste disposal site.

#### **Organic Waste**

Approximately 28 000 - 34 000 kgs of organic waste is created daily. Solid waste such as discard carcasses, feathers and bones are disposed of at a rendering plant.

#### **No-go alternative**

No additional solid waste will be produced.

#### 7.2.4 Liquid effluent

#### Activity alternative 1 (Preferred alternative)

Water that is used to washed away blood is collected directly into a "blood water tank". The remaining water exiting the plant flows into a bin where feathers are separated from the water. The feathers are removed and transported to the "blue tank" which contains all the waste that is collected by a rendering plant. A truck from the rendering plant parks under the "blue tank" for the feathers to be dumped, then under the blood water tank for that to be dumped, and then removes this to the rendering plant.

After the feathers are removed, the water runs in an underground pipeline into a second bin/pit. Stormwater from the site is collected in concrete canals and also flows into this pit. The solids are removed using a separator. The sludge is then pumped through a flocculent to bind any remaining solids. The bound solids float on top of the water and is scraped off. This process is repeated until all the solids have been removed. All the solids also go to the "blue tank" to be removed to a rendering plant.

After removal of the solids, the sludge enters a sludge compressor where all the water is pressed out the sludge. The compressed sludge is then added to the "blue tank" to be taken to the rendering plant.

The remaining water is directed to the first aerobic dam. Bacteria is added to the aerobic dams to digest any remaining solids in the water. The bacteria and any remaining solids collect on top of the water. The water is then taken from the bottom of the dam, underground, to a second aerobic dam. Water in the aerobic dams is continuously mixed and aerated to stimulate bacterial activity.

From the second aerobic dam, water is again pumped underground to a third dam which acts as a retention dam for clean water. It is pumped from the bottom of the dam and used for irrigation purposes by the farmer who owns the property. Any overflow is directed to the river. The water is tested monthly and TDS (total dissolved solids) concentration meets the requirements for being discharged into the river.

#### No-go alternative

No additional liquid effluent will be produced.

#### 7.2.5 Atmospheric emissions

#### Activity alternative 1 (Preferred alternative)

Since the abattoir be closed and environmentally controlled, the amounts of dust, ammonia and odours released into the atmosphere will be minimal.

#### **No-go** alternative

No additional emissions will be produced.

## 7.2.6. Noise

#### Activity alternative 1 (Preferred alternative)

Low levels of noise are produced by the chicks and the machinery

#### No-go alternative

No additional noise will be produced

## 7.2.7 Water use

#### Activity alternative 1 (Preferred alternative)

The activity will use approximately 540 000 litres of water per month. This will be sourced from groundwater through existing boreholes.

#### Activity alternative 2

The activity will use approximately 83 000 litres of water per month. This will be sourced from groundwater through existing boreholes.

#### No-go alternative

The activity will not use additional water.

## 7.2.8 Energy efficiency

## Activity alternative 1 (Preferred alternative)

Energy efficient light bulbs will be used throughout. Load reduction motors will be installed. All machinery will be fitted with soft starters.

#### No-go alternative

Energy efficient light bulbs will be used throughout. Load reduction motors will be installed. All machinery will be fitted with soft starters.

## 8. POTENTIAL IMPACTS

# 8.1 Full description of impacts and risks identified

The impact assessment in this section considered the following activities and the impact of each of the activities: Activity 1: Expansion of the poultry abattoir.

8.1.1 Activity alternative 1 – Expansion of	a poultry abattoir (preferred activity)
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*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
1	Air pollution on a local level.	2	1	2	1	3	Low	Negative	This impact is not reversible, but can be completely avoided by the following measures: Dust control by means of watering if necessary. Vehicles to be regularly serviced and well-tuned. Operations to be undertaken during working hours only.
1	Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site.	1	1	2	3	3	Low	Negative	This impact is not reversible, but can be completely avoided by the following measures: Machinery must be properly maintained at all times. Servicing of machinery must take place only in specific demarcated and protected areas. Measures must be taken for the proper disposal of

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*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
									oils, grease, oil filters, rags, etc.
1	Pollution of soil, surface water and groundwater due to ineffective management of sewage and general waste management.	3	3	3	2	3	Medium	Negative	This impact is not reversible, but can be completely avoided by the following measures: Proper ablution facilities must be provided i.e. chemical toilets at appropriate locations on site if necessary or existing facilities must be used. Workers must be made aware of the risk of soil water contamination. Domestic waste must be disposed of in appropriate containers, and removed to the nearest municipal waste-disposal site as part of existing waste management system.
1 Bucandi	Pollution of soil, surface water and groundwater due to ineffective disposal of blood, feathers DOA's and wash water Environmental Solutio	3 ns	3	3	2	3	Medium Page   13	Negative	This impact is not reversible, but can be completely avoided by the following measures: Blood, feathers and DOA's will be transported to a rendering plant on a daily basis. All wash water will be collected through a drain system, screened and skimmed repeatedly to remove

*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
									blood, fat and other solids. All solids will be removed to the rendering plant. The remaining water will be treated in aerobic dams before being used for irrigation of vegetable fields by a neighbouring farmer. See Appendix F3
1	Soil compaction and loss of fertility.	1	1	2	3	3	Low	Negative	This impact is not reversible, but can be completely avoided by the following measures: Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e. diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.
1	Increased fire risk	1	1	2	3	3	Low	Negative	This impact is not reversible, but can be completely avoided by the following measures: Cooking and heating fires permitted only in designated areas with appropriate safety measures.

*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
									Adequate firefighting equipment must be available, as prescribed by the relevant safety standards and legislation.
1	Disturbance of fauna	1	1	2	3	3	Low	Negative	This impact is not reversible, but can be completely avoided by the following measures: The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.
1	Safety on the construction site	4	5	5	3	3	High	Negative	This impact is not reversible, but can be completely avoided by the following measures: Access to the construction site to be controlled at all times.
1	Degradation of aesthetics	1	1	2	3	3	Low	Negative	This impact is not reversible, but can be mitigated and minimised. The proposed expansion will take place within the footprint of the existing abattoir and will not be visible from anywhere outside of the site.
1	The expansion of the abattoir will provide additional	4	4	3	1	5	High	Positive	No mitigation suggested.

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*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
	employment opportunities to the local communities.								

# 8.1.2 "No-go" alternative - Continuation of existing abattoir

*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/MitigationMeasurestoImplemented
N/A	Air pollution on a local level.	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site.	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.

*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
N/A	Pollution of soil, surface water and groundwater due to ineffective management of sewage and general waste management.	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Pollution of soil, surface water and groundwater due to ineffective disposal of blood, feathers DOA's and wash water	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Soil compaction and loss of fertility.	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Increased fire risk	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.

*Activity	Specific Impact & Risk	Extent	Duration	Severity	Degree of Certainty	Probability	Significance prior to mitigation	Status of Impact	Reversibility/Mitigation Measures to be Implemented
N/A	Disturbance of fauna	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Safety on the construction site	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.
N/A	Degradation of aesthetics	2	1	2	1	3	Low	Negative	No additional activity will take place, only continued operation of the existing abattoir. No mitigation recommended.

# 8.2 Methodology of determining impacts

- Various site visits were conducted by the EAP and information was gathered regarding the nature of the process and the baseline environment.
- The significance of identified impacts was determined as follows:

#### • Extent

The extent of the impact refers to the spatial dimension to which an impact will be felt (i.e. site, study area, local, regional, or national scale). The criteria for rating the impact extent are described in more detail in Table 1.

#### Table 1: Extent of Impact

Extent					
Rating	1	2	3	4	5
Description	On site or the impact will be restricted to its immediate area	Or the impact will be	•	Regional/Provincial Or the impact will be felt on a Local, district municipal or Provincial level	

#### Duration

In order to accurately describe the impact it is necessary to understand the duration and persistence of an impact in the environment. The criteria for rating the duration of the impact are described in more detail in Table 2.

#### Table 2: Duration of Impact

Duration					
Rating	1	2	3	4	5
Description	Temporary	Short-term	Medium term	Long term	Permanent
Doonpaon	Or the impact will occur very	Or the impact will continue to occur for	Or the impact will continue to occur for	Or the impact will continue to occur for	Or the impact will be continued until the

#### Eagles Valley Poultry Abattoir

	a period between 1 to	•	a period longer than	conclusion of activity
or loss than 1 year	5 years from commencement of activity	10 years from commencement of activity	10 years from commencement of activity	

#### • <u>Severity</u>

A description must be given as to whether an impact is destructive, or benign. It determines whether the intensity of the impact on the natural environment or society is permanently, significantly changes its functionality, or slightly alters it. The mitigation potential must be determined for each impact. If limited information or expertise exists, estimates based on experience will be made. The criteria for rating the severity of the impact are described in more detail in Table 3.

## Table 3: Severity of Impact

Severity					
Rating	1	2	3	4	5
Description	Temporary impact easily reversible. Insignificant change or deterioration or disturbance Or improvement of natural and social	Short-term impact. Low cost to mitigate Small Moderate change or deterioration or disturbance	Medium term impact, which require substantial cost to mitigate. Potential to mitigate and potential to reverse impact	Long term impact High cost to mitigate Possible to mitigate Very significant change or deterioration or disturbance	Permanent impact Prohibitive cost to mitigate Little or no mechanism to mitigate Irreversible
	environments	Or improvement of natural and social	Significant change or deterioration or	Or improvement of	Disastrous change or

Severity						
		environments	disturbance Or improvement of natural and social environments	natural and social environments	deterioration or disturbance or improvement of natural and social environments	

#### • <u>Degree of certainty</u>

As with all studies it is not possible to be 100% certain of all facts and for this reason a standard "Degree of certainty" scale is used as discussed in Table 4.

## Table 4: Degree of Certainty of Impact Occurrence

Rating	1	2	3	4	5
	Definite	Probable	Possible	Unsure	Unknown or the consultant or specialis
Description	Or more than 90% sure of the fact or the likelihood of the impact occurring	90% sure of the fact	Or between 40% and 70% sure of the fact or the likelihood of the impact occurring	sure of the fact or the	believes a assessment is no possible even wit additional research.

#### • Probability

The criteria used for rating the likelihood of impact occurrence are described in more detail in Table 5.

#### Table 5: Probability of Impact Occurrence

Probability					
Rating	1	2	3	4	5
	Impossible	Improbable	Probable	Highly probable	Definite
	Or the impact will not	Or the possibility of	Or there is a	Or it is most likely	Or the impact will
	occur	the impact occurring	possibility that the	that the impact will	take place regardless
Description		is very low	impact will occur,	occur at some stage,	
			provision must be	provision must be	plans and there can
			provided	provided	only be relied on
					mitigation measures
					to contain the impact

#### • Significance

Evaluating the significance of environmental impacts is a critical component of impact analysis. The matrix uses the consequence and the probability of the different activities and associated impacts to determine the significance of the impacts. Consequence is determined by the sum total of criteria like extent, duration and severity, degree of certainty of impact as well as compliance to applicable legislation. Values of 1-5 are assigned to each of the different criteria to determine the overall consequence, which is divided by 3 to give a criterion rating.

The overall consequence and probability rating are multiplied to give a final significance rating. The values as shown in the following table are then used to rank the significance. It must be said however that in the end, a subjective judging of an impact can still be done, but the reasons for doing so must be qualified. The matrix used to determine the significance of each of the identified impact in this study is shown in Table 6.

#### Table 6: Impact Significance Matrix

Impact Significance Matrix					
Rating	Very Low	Low	Medium	High	Very High
Bucandi Environmental Solutions Page   22					

	1-4	5-10	11-15	16-20	21-25+
Description	There is little or no impact at all	Impact is of a low order and therefore likely to have little real effect In the case of adverse impacts: mitigation and or remedial activity is either easily achieved or little will be required, or both In the case of beneficial impacts, alternative means for achieving this benefit are likely to be easier, cheaper, more effective, less time consuming, or some combination of these.	substantial in relation to other impacts, which might take effect within the bounds of those which could occur In the case of adverse impacts: mitigation and or remedial activity are both feasible and fairly easily possible In the case of beneficial impacts: other means of achieving this benefit	substantial order within the bounds of impacts which could occur In the case of adverse impacts: mitigation and or remedial activity are feasible but difficult, expensive, time- consuming or some combination In the case of	which could occur In the case of adverse impacts: there is no possible mitigation and or remedial activity which could offset the impact In the case of beneficial impacts, there is no real alternative to

Table 7: How to Apply the Rating Scale

Consequence

Impact Significance = (Extent + Duration + Severity + Degree of Certainty)/3] X Probability

Eagles Valley Poultry Abattoir

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# 8.3 Summary of positive and negative impacts

Specific impact or risk	Preferred activity (Activity alternative 1)	"No-go" alternative
Air pollution on a local level.	Negative	No impact
Contamination of soils, surface	Negative	Negative
water and groundwater due to		
leakages from vehicles entering		
and exiting the site.		
Pollution of soil, surface water	Negative	Negative
and groundwater due to		
ineffective management of		
sewage and general waste		
management.		
Pollution of soil, surface water	Negative	No impact
and groundwater due to		
ineffective disposal of blood,		
feathers DOA's and wash water		
Soil compaction and loss of	Negative	No impact
fertility.		
Increased fire risk	Negative	No impact
Disturbance of fauna	Negative	No impact
Disturbance of flora	Negative	No impact
Safety on the construction site	Negative	No impact
Degradation of aesthetics	Negative	Negative
The construction and operation	Positive	No impact
of the abattoir will provide		
employment opportunities to the		
local communities.		

# 8.4 Mitigation measures

Specific impact or risk	Mitigation measures			
Air pollution on a local level.	Dust control by means of watering if necessary. Vehicles to			
	be regularly serviced and well-tuned. Operations to be			
	undertaken during working hours only.			
Contamination of soils,	Machinery must be properly maintained at all times.			
surface water and	Servicing of machinery must take place only in			
groundwater due to leakages	specific demarcated and protected areas. Measures must			
from vehicles entering and	be taken for the proper disposal of oils, grease, oil filters,			
exiting the site.	rags, etc.			
Pollution of soil, surface water	Proper ablution facilities must be provided i.e. chemical			
and groundwater due to	toilets at appropriate locations on site if necessary or			
ineffective management of	existing facilities must be used. Workers must be made			
sewage and general waste	aware of the risk of soil water contamination. Domestic			
management.	waste must be disposed of in appropriate containers, and			

	removed to the nearest municipal waste-disposal site as
	part of existing waste management system.
Pollution of soil, surface water and groundwater due to ineffective disposal of blood, feathers DOA's and wash water.	Blood, feathers and DOA's will be transported to a rendering plant on a daily basis. All wash water will be collected through a drain system, screened and skimmed repeatedly to remove blood, fat and other solids. All solids will be removed to the rendering plant. The remaining water will be treated in aerobic dams before being used for irrigation of vegetable fields by a neighbouring farmer. See Appendix F3
Soil compaction and loss of fertility.	Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e. diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.
Increased fire risk	Cooking and heating fires permitted only in designated areas with appropriate safety measures. Adequate firefighting equipment must be available, as prescribed by the relevant safety standards and legislation.
Disturbance of fauna	The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.
Safety on the construction site	Access to the construction site to be controlled at all times.
Degradation of aesthetics	The proposed expansion will take place within the footprint of the existing abattoir and will not be visible from anywhere outside of the site.
The expansion of the abattoir will provide additional employment opportunities to the local communities.	No mitigation suggested.

## 8.5 Motivation for alternative selection

The proposed activity alternative was selected as it will have minimal impact on the environment after mitigation measures have been implemented.

# 8.6 Impact of activity on preferred location

The table below provides a description of the significance of each identified activity on the preferred site location throughout the life of the proposed project.

Specific risk or activity	Significance before mitigation	Significance after mitigation
Air pollution on a local level.	Low	Low
Contamination of soils, surface water and	Low	Low
groundwater due to leakages from vehicles entering		
and exiting the site.		

Pollution of soil, surface water and groundwater due	Medium	Low
to ineffective management of sewage and general		
waste management.		
Pollution of soil, surface water and groundwater due	Medium	Low
to ineffective manure disposal.		
Pollution of soil, surface water and groundwater due	Medium	Low
to ineffective disposal of blood, feathers DOA's and		
wash water.		
Soil compaction and loss of fertility.	Low	Low
Increased fire risk	Low	Low
Disturbance of fauna	Low	Low
Disturbance of flora	High	Medium
Safety on the construction site	High	Low
Degradation of aesthetics	Low	Low
The expansion of the abattoir will provide additional	High	High
employment opportunities to the local communities.		5

# 8.7 Description and assessment of each impact

1. **Impact:** Air pollution on a local level. Possibly caused by Activities 1 This is not a cumulative impact.

Nature, significance and consequences:

Noise, dust and emissions due to excavation, stockpiling and transport of building material and removal of rubble may cause air pollution.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Study area	Short- term	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

2. **Impact:** Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site. Possibly caused by Activities 1

This is not a cumulative impact

## Nature, significance and consequences:

Contamination of surface and ground water can be caused by operation and servicing of light earthmoving and transport machinery, particularly oil spills and leakage.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Site specific	Temporary	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

3. **Impact:** Pollution of soil, surface water and groundwater due to ineffective management of sewage and general waste management. Possibly caused by Activities 1

This is not a cumulative impact

#### Nature, significance and consequences:

Uncontrolled sewage and domestic waste disposal by workers may cause surface and ground water pollution as well as unpleasant odours and possible health risks.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Local	Medium term	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

4. **Impact:** Pollution of soil, surface water and groundwater due to ineffective disposal of blood, feathers DOA's and wash water. Possibly caused by Activity 1.

This is not a cumulative impact

## Nature, significance and consequences:

Disposal of blood, feathers DOA's and wash water pose serious health, and soil and water pollution risks.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Local	Medium term	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

5. Impact: Soil compaction and loss of fertility. Possibly caused by Activities 1.

#### This is not a cumulative impact

## Nature, significance and consequences:

Soil compaction, loss of fertility and increased erosion from unprotected slopes associated with trenches and foundations, as a result of excavation and earthmoving. This will be aggravated in the event of heavy rain.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Site specific	Temporary	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

6. Impact: Increased fire risk. Possibly caused by Activities 1.

This is not a cumulative impact

## Nature, significance and consequences:

Uncontrolled cooking fires could cause veld fires. This would harm fauna and flora and pose a safety risk, particularly concerning vehicles and the adjacent land users.

Extent	Duration	Drobobility	Reversibility	Irreplaceable	Degree	of	avoidance,
Extent	Duration	FIODADIIIty	Reversionity	loss	manageme	nt or mit	tigation

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Site specific	Temporary	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

7. Impact: Disturbance of fauna. Possibly caused by Activities 1.

This is not a cumulative impact

## Nature, significance and consequences:

Temporary disturbance of fauna, becoming permanent as operational phase commences. This impact is unavoidable, but of low significance since there are no endangered species present.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Local	Medium term	Probable	Not reversible	No	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

8. Impact: Safety on the construction site. Possibly caused by Activities 1.

This is not a cumulative impact

## Nature, significance and consequences:

Injuries to residents and construction workers can be cause as a result of construction activities.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Regional	Permanent	Probable	Not reversible	Yes	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

9. Impact: Degradation of aesthetics. Possibly caused by Activities 1.

This is not a cumulative impact

## Nature, significance and consequences:

Visual impacts may occur during the construction and operational phase as a result of vehicle exhausts, dust, bare unprotected areas, the possibility of littering and the presence of the abattoir.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree of avoidance, management or mitigation
Local	Permanent	Probable	Not reversible	Yes	This impact is not reversible, but can be completely avoided by implementing mitigation measures.

10. **Impact:** Economic benefit to the local communities. Possibly caused by Activities 1. This is not a cumulative impact

## Nature, significance and consequences:

The construction and operation of the abattoir will provide employment opportunities to the local communities.

Extent	Duration	Probability	Reversibility	Irreplaceable loss	Degree avoidance, management mitigation	of or
Regional	Long term	Probable	Not reversible	No	No avoidance mitigation required.	or

# 8.8 Summary of specialist reports

No specialist studies were conducted for this application.

# 8.9 Services required

See Appendix F5 for agreements with the rendering plant.

## 9. IMPACT MANAGEMENT OBJECTIVES AND OUTCOMES

Expansion of the poultry abattoir requires careful environmental impact management to ensure that the expansion is sustainable and that negative effects on the surrounding environment are minimised.

## 9.1 Waste management

**Objective:** Implement a comprehensive waste management system to minimise pollution and ensure proper disposal of waste generated during the expansion process.

# 9.2 Water conservation

**Objective:** Reduce water consumption and minimise the risk of water pollution during the expansion.

# 9.3 Energy efficiency

**Objective:** Improve energy efficiency to reduce greenhouse gas emissions and lower operational costs

## 9.4 Groundwater

**Objective:** Minimise air pollution from the abattoir's operations to protect local air quality.

## 9.5 Noise control

**Objective:** Mitigate noise disturbances caused by the abattoir's activities to minimise impact on neighbouring communities.

## 9.6 Community engagement

**Objective:** Foster positive relationships with the local community and address any concerns they may have about the expansion.

## **10.** ASPECTS FOR INCLUSION IN AUTHORISATION

## 10.1 Reasoned opinion

The final site plans (Appendix C) were created taking into account all the concerns raised by the public, specialist reports and impact assessment. If this map is followed, and if proper management and mitigation is implemented and rehabilitation is done and monitored, the impact can be kept relatively low.

It is recommended that the activity should be authorised.

## **10.2 Conditions that must be included in the authorisation**

Mitigation and management measures as stipulated in Sections 9 and 11 should be implemented.

The rehabilitation and soil management must be done in accordance with the guidelines provided in the EMPr.

Environmental audits should be conducted every two months during the Construction Phase and every six months during the Operational Phase.

Rehabilitation monitoring should be conducted according to the EMPr.

Rehabilitation should be ongoing while operation is taking place.

## 11. APPENDICES

Appendix A: Maps Appendix B: Site photographs Appendix C: Site plans Appendix D: Public participation Appendix E: EMPr Appendix F: Additional information Appendix G: CV of EAP Bucandi Environmental Solutions

## 12. UNDERTAKING

The EAP herewith confirms

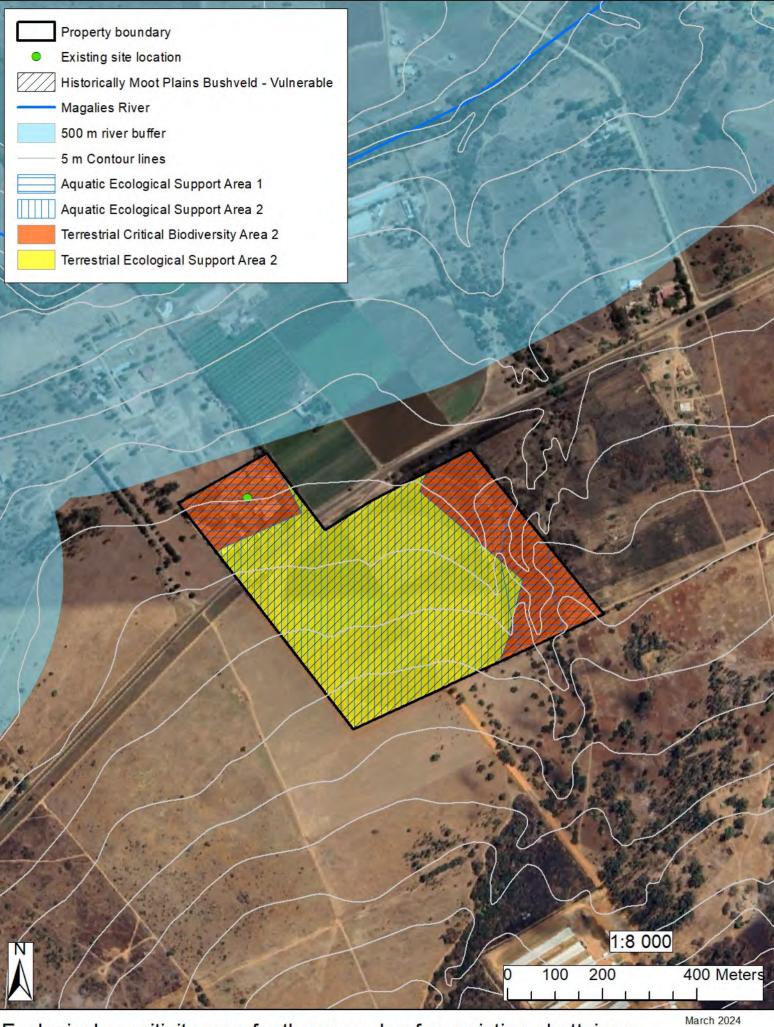
- a) the correctness of the information provided in the reports  $\square$
- b) the inclusion of comments and inputs from stakeholders and I&APS
- c) the inclusion of inputs and recommendations from the specialist reports where relevant;  $\square$  and
- d) that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.

Signature Environmental Assessment Practitioner Bucandi Environmental Solutions

Signed at Potchefstroom on this 16<sup>th</sup> day of April 2024.

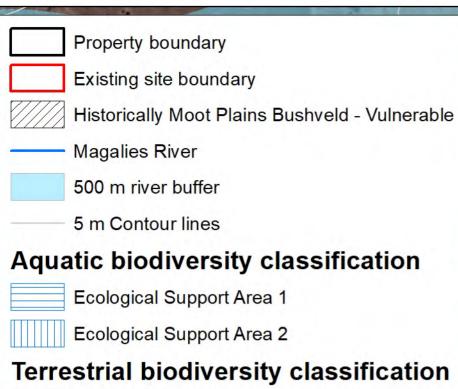
Appendix A

Maps



Ecological sensitivity map for the upgrade of an existing abattoir on Portion 5 of the farm Johannes 438 JQ







Critical Biodiversity Area 2 Ecological Support Area 2



Layout plan for the upgrade of an existing abattoir on Portion 5 of the farm Johannes 438 JQ

March 2024 Created by:



# **Locality Map**

Eagles Valley Poultry - Hekpoort Abattoir

Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

Scale 1:50 000



Farm Boundary

- Farm Boundar
- Proposed Site
- Site Boundary

R560 leading to Broederstroom North

25°49'28.98"S; 27°43'50.23"E

R560 leading to Hekpoort North



R400 leading to Magaliesburg North

6 km

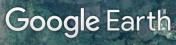


Image Landsat / Copernicus

Appendix B

Site photographs

# Site photographs



North



Northeast



# East



Southeast



South



Southwest



# West



Northwest

Appendix C

Site plans



Appendix D1

Proof of newspaper advertisement

Vrydag 9 Februarie 2024 | Beeld | My wêreld



Sake 15



z

Appendix D2

Proof of site notices

# Site notices





Appendix D3

Proof of letters to I&AP



Dear Pogiso Shikwane

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

I trust that you will find everything in order. Please don't hesitate to contact me if you have any questions.

The following is the legal notice that was placed in the local newspaper (Beeld).

#### **ENVIRONMENTAL IMPACT ASSESSMENT PROCESS**

Notice is given in terms of the Environmental Impact Assessment Regulations Listing Notice 1 & 3 of 2014 of Government Notice No. R327 in Government Gazette No. 38282 of 4 December 2014 as amended April 2017 under the National Environmental Management Act, Act 107 of 1998 of intent to carry out the following activity:

(ACTIVITY NO. 38) The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than (i) 50 poultry;

**PROJECT TITLE AND DISCRIPTION**: Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day.

**LOCATION:** Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

**OFFICIAL:** North West Department of Economic Development, Environment, Conservation and Tourism, Telephone number 018 389 5719/5431/5688

**CONSULTANT:** Bucandi Environmental Solutions, PO Box 317, Viljoenskroon, 9520. Tel 076 422 3484, Fax 086 551 1894, E-Mail info@bucandi.co.za

**DATE OF NOTICE:** 9 February 2024 in order to ensure that you are identified as an Interested or Affected Party, please submit your name, contact information and environmental interest in the matter to the consultant before 11 March 2024.

Best regards

Hélen Prinsloo Ecologist and owner

Phone Helen: Phone Anton: Fax: E-mail: E-mail: 076 682-4369 076 422 3484 086 551-1894 helen@bucandi.co.za info@bucandi.co.za Reg. nr. 2009/087537/23



Dear Lillian Siwelane

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

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Phone Helen: Phone Anton: Fax: E-mail: E-mail: 076 682-4369 076 422 3484 086 551-1894 helen@bucandi.co.za info@bucandi.co.za Reg. nr. 2009/087537/23

Please find attached an information letter regarding the expansion of poultry abattoir with the capacity to slaughter a total of 100 00 chickens per day. Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

#### Kind Regards/Vriendelike Groete



From:	Marika Smook
To:	"mpho.magasa@madibeng.gov.za"
Subject:	Eagles Valley Poultry Hekpoort Abattpor Information Letter
Date:	Monday, 08 April 2024 13:09:00
Attachments:	Madibeng Local.pdf

Please find attached an information letter regarding the expansion of poultry abattoir with the capacity to slaughter a total of 100 00 chickens per day. Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

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#### Kind Regards/Vriendelike Groete



Please see below a Dropbox link for the **Draft Basic Assessment Report** for the proposed **Eagles Valley Poultry Abattoir** facility. Please find the information letter attached.

https://www.dropbox.com/t/QaPblxuN25w2aP8E

Any Questions or Queries, please contact **Marika Smook** on **076 422 3484** or email **info@bucandi.co.za** 

# Kind Regards/Vriendelike Groete



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Any Questions or Queries, please contact **Marika Smook** on **076 422 3484** or email **info@bucandi.co.za** 

# Kind Regards/Vriendelike Groete



Please see below a Dropbox link for the **Draft Basic Assessment Report** for the proposed **Eagles Valley Poultry Abattoir** facility. Please find the information letter attached.

https://www.dropbox.com/t/QaPblxuN25w2aP8E

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# Kind Regards/Vriendelike Groete





Dear Joey/Pieter

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

I trust that you will find everything in order. Please don't hesitate to contact me if you have any questions.

The following is the legal notice that was placed in the local newspaper (Beeld).

#### **ENVIRONMENTAL IMPACT ASSESSMENT PROCESS**

Notice is given in terms of the Environmental Impact Assessment Regulations Listing Notice 1 & 3 of 2014 of Government Notice No. R327 in Government Gazette No. 38282 of 4 December 2014 as amended April 2017 under the National Environmental Management Act, Act 107 of 1998 of intent to carry out the following activity:

(ACTIVITY NO. 38) The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than (i) 50 poultry;

**PROJECT TITLE AND DISCRIPTION**: Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day.

**LOCATION:** Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

**OFFICIAL:** North West Department of Economic Development, Environment, Conservation and Tourism, Telephone number 018 389 5719/5431/5688

**CONSULTANT:** Bucandi Environmental Solutions, PO Box 317, Viljoenskroon, 9520. Tel 076 422 3484, Fax 086 551 1894, E-Mail info@bucandi.co.za

**DATE OF NOTICE:** 9 February 2024 in order to ensure that you are identified as an Interested or Affected Party, please submit your name, contact information and environmental interest in the matter to the consultant before 11 March 2024.

Best regards

Hélen Prinsloo Ecologist and owner

Phone Helen: Phone Anton: Fax: E-mail: E-mail: 076 682-4369 076 422 3484 086 551-1894 helen@bucandi.co.za info@bucandi.co.za Reg. nr. 2009/087537/23



Dear Henriette/Clifford

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

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Dear Mpho Magasa

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

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Dear Lizelle Stolz

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

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P.O. Box 317 Viljoenskroon 9520



Dear Carol Matute

9 February 2024

Eagles Valley Poultry is planning the expansion of a poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. According to the National Environmental Management Act (Act 107 of 1998) I am hereby, as the EAP, providing you with official notice of the intended project. Please note that you have thirty (30) days to table any concerns or questions regarding the project in writing to me.

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P.O. Box 317 Viljoenskroon 9520

Appendix D4

Comments and responses report

# Comments and responses report

1. Interested and Affected Parties

Naam	Telefoonnommer	Adres
Lungile Boerdery CC (Henriette/Clifford)	082 939 0166	schom@mweb.co.za
Jazada Boerdery (Pty) Ltd (Joey/Pieter)	082 576 6975	pjpotgieter6@gmail.com
Thiel Farming (Pty) Ltd (Carol Matute)	069 938 3592	carol@motse.co.za
Bojanala Platinum District Municipality (Mr Pogiso Shikwane)	014 590 4502	PO Box 1993, RUSTENBURG, 0300 Info@bojanala.gov.za
Madibeng Local Municipality (Mpho Magasa)	012 318 9299/9263	mpho.magasa@madibeng.gov.za 53 Van Velden Street, Brits
Madibeng Ward 29 Cllr Lizelle Stolz	084 596 7396	lizellemoller@gmail.com
DWS – Ms Lillian Siwelane	083 488 1211	Siwelanel@dws.gov.za

2. On 9 February 2024 an advertisement was placed in Beeld and e-mails were sent to stakeholders. A copy of the DBAR will been circulated to all I&AP's. No comment was received from I&AP

Appendix E

Environmental Management Programme

**Environmental Management Programme** 

for

# EAGLES VALLEY POULTRY ABATTOIR

# REF NO. NWP/EIA/05/2024

Prepared by:

Bucandi Environmental Solutions



Project Manager: Dr Hélen Prinsloo (D. Tech) EAPASA 2022/5586 (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP)

April 2024

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	b)	Expertise of the EAP	1
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#### EVP Abattoir - EMPr

# 1. DETAILS OF THE EAP

# a) Contact details of EAP

Name of The Practitioner: Dr. Hélen Prinsloo

Tel No.: 076 682 4369

Fax No.: 086 551 1894

e-mail address: helen@bucandi.co.za

# b) Expertise of the EAP

*The qualifications of the EAP* D. Tech (Nature Conservation)

Summary of the EAP's past experience.

15 years' experience with environmental impact assessments, 3 years in the USA, 12 years in South Africa.

Please see CV attached as Appendix G-4 of the Basic Assessment Report.

### 2. DETAILED DESCRIPTION OF ASPECTS

### Poultry Abattoir:

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day The need for a Basic Assessment is triggered by Listing 1; activity 38(i) in GN R327 dated 4 December 2014 and amended on 07 April 2017. The expansion will not involve an expansion in the building footprint. The site is located on an area that has an existing poultry abattoir. The project will entail the following:

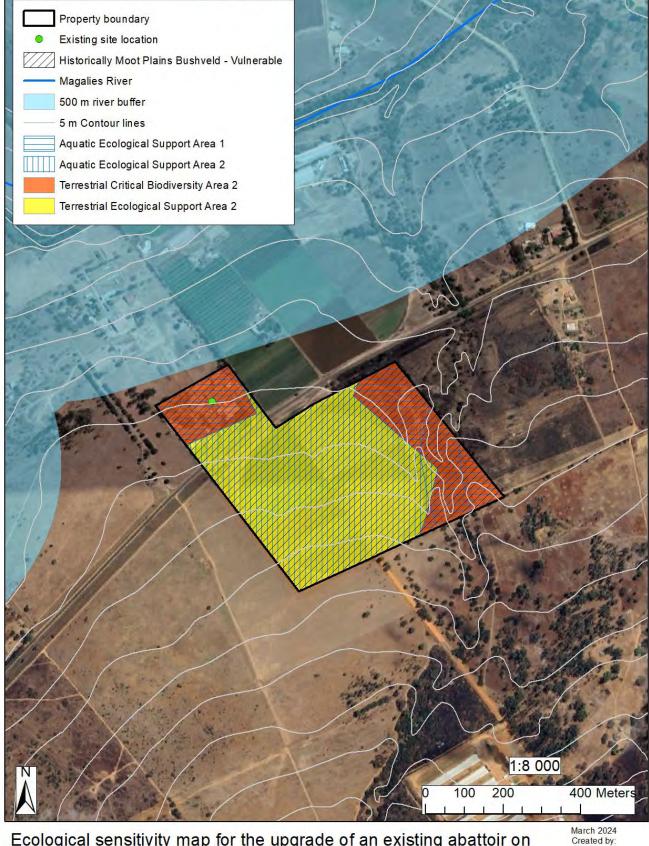
- Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day.
- Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m<sup>2</sup> in total) will be erected for additional cool storage. This will take place in an area that is already paved.
- The footprint of the development will not expand.
- Due to upgraded technology, waste water will be reduced from 1 000 m<sup>3</sup> to 700 m<sup>3</sup> per day.

# Listing Notice 1

(ACTIVITY NO. 38) The expansion and related operation of facilities	Expansion of poultry abattoir with the
for the slaughter of animals where the daily product throughput will	capacity to slaughter a total of 100 00
be increased by more than (i) 50 poultry;	chickens per day

#### EVP Abattoir - EMPr

#### 3. ECOLOGICAL SENSITIVITY MAP OF PREFERRED SITE



Ecological sensitivity map for the upgrade of an existing abattoir on Portion 5 of the farm Johannes 438 JQ



# 4. IMPACTS AND MITIGATION MEASURES

Activity	Impact summary	Significance	e	Proposed mitigation		
		Before mitigation	After mitigation			
Utilisation of agricultural fields.	Air pollution on a local level.	Low	Low	Dust control by means of watering if necessary. Vehicles to be regularly serviced and well-tuned. Operations to be undertaken during working hours only.		
	Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site.	Low	Low	Machinery must be properly maintained at all times. Servicing of machinery must take place only in specific demarcated and protected areas. Measures must be taken for the proper disposal of oils, grease, oil filters, rags, etc.		
	Soil compaction and loss of fertility.	Low	Low	Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e., diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.		
	Disturbance of fauna	Low	Low	The proposed expansion will take place within the footprin of the existing abattoir and there will be no impact on fauna.		
	Safety on the construction site	High	Low	Access to the construction site to be controlled at all times.		
	Degradation of aesthetics	Low	Low	The proposed expansion will take place within the footprin of the existing abattoir and will not be visible from anywhere outside of the site.		
	Providing employment opportunities to the local community	High	High	No mitigation proposed.		

# a) Impacts identified for preferred alternative

Activity	Impact summary	Significanc	e	Proposed mitigation
		Before mitigation	After mitigation	
Earthworks	Air pollution on a local level.	Low	Low	Dust control by means of watering if necessary. Vehicles to be regularly serviced and well-tuned. Operations to be undertaken during working hours only.
	Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site.	Low	Low	Machinery must be properly maintained at all times. Servicing of machinery must take place only in specific demarcated and protected areas. Measures must be taken for the proper disposal of oils, grease, oil filters, rags, etc.
	Soil compaction and loss of fertility.	Low	Low	Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e., diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.
	Increased fire risk	Low	Low	Cooking and heating fires permitted only in designated areas with appropriate safety measures. Adequate firefighting equipment must be available, as prescribed by the relevant safety standards and legislation.
	Disturbance of fauna	Low	Low	The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.
	Safety on the construction site	High	Low	Access to the construction site to be controlled at all times.
	Degradation of aesthetics	Low	Low	The proposed expansion will take place within the footprint of the existing abattoir and will not be visible from anywhere outside of the site.

Activity	Impact summary	Significanc	e	Proposed mitigation
		Before mitigation	After mitigation	
	Providing employment opportunities to the local community	High	High	No mitigation proposed.
Expansion of a poultry abattoir	Air pollution on a local level.	Low	Low	Dust control by means of watering if necessary. Vehicles to be regularly serviced and well-tuned. Operations to be undertaken during working hours only.
	Contamination of soils, surface water and groundwater due to leakages from vehicles entering and exiting the site.	Low	Low	Machinery must be properly maintained at all times. Servicing of machinery must take place only in specific demarcated and protected areas. Measures must be taken for the proper disposal of oils, grease, oil filters, rags, etc.
	Pollution of soil, surface water and groundwater due to ineffective management of sewage and general waste management.	Medium	Low	Proper ablution facilities must be provided i.e. chemical toilets at appropriate locations on site if necessary or existing facilities must be used. Workers must be made aware of the risk of soil water contamination. Domestic waste must be disposed of in appropriate containers, and removed to the nearest municipal waste-disposal site as part of existing waste management system.
	Soil compaction and loss of fertility.	Low	Low	Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e., diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.
	Increased fire risk	Low	Low	Cooking and heating fires permitted only in designated areas with appropriate safety measures. Adequate firefighting equipment must

Activity	Impact summary	Significanc		Proposed mitigation
		Before mitigation	After mitigation	
				be available, as prescribed by the relevant safety standards and legislation.
	Disturbance of fauna	Low	Low	The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.
	Safety on the construction site	High	Low	Access to the construction site to be controlled at all times.
	Degradation of aesthetics	Low	Low	The proposed expansion will take place within the footprint of the existing abattoir and will not be visible from anywhere outside of the site.
	Providing employment opportunities to the local community	High	High	No mitigation proposed.
Operation of the poultry abattoir.	Pollution of soil, surface water and groundwater due to ineffective management of sewage and general waste management.	Medium	Low	Proper ablution facilities must be provided i.e. chemical toilets at appropriate locations on site if necessary or existing facilities must be used. Workers must be made aware of the risk of soil water contamination. Domestic waste must be disposed of in appropriate containers, and removed to the nearest municipal waste-disposal site as part of existing waste management system.
	Pollution of soil, surface water and groundwater due to ineffective disposal of blood, feathers DOA's and wash water.	Medium	Low	Blood, feathers and DOA's will be transported to a rendering plant on a daily basis. All wash water will be collected through a drain system, screened and skimmed repeatedly to remove blood, fat and other solids. All solids will be removed to the rendering plant. The remaining water will be treated in aerobic dams before being used for irrigation

Activity	Impact summary	Significanc	e	Proposed mitigation	
		Before mitigation	After mitigation		
				of vegetable fields by a neighbouring farmer. See Appendix F3	
	Soil compaction and loss of fertility.	Low	Low	Appropriate measures must be taken to reduce the risk of erosion from unprotected slopes i.e., diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material. All unprotected slopes must be rehabilitated concurrent with construction.	
	Increased fire risk	Low	Low	Cooking and heating fires permitted only in designated areas with appropriate safety measures. Adequate firefighting equipment must be available, as prescribed by the relevant safety standards and legislation.	
	Disturbance of fauna	Low	The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.		
	Degradation of aesthetics	take place of the existing will not be anywhere of the existing and the existing anywhere of the		The proposed expansion will take place within the footprint of the existing abattoir and will not be visible from anywhere outside of the site.	
	Providing employment opportunities to the local community	High	High	No mitigation proposed.	

# b) Timeframes and management of mitigation

The table below lists the activities identified, mitigation measures proposed, the person responsible for the management actions, timing of actions and objectives to be reached.

Activities	Environmental Objectives	Auditable Management and Mitigation Measures	٧	Person Responsible	Timing	Requirement for "sign-off" report
	-	Planning and Design P	has	ie		
No environmental activity will take place during this phase.						
		Construction Phase	е			
1. Expansion of poultry abattoir	Maintaining air quality and minimising disturbance caused	Dust control by means of watering if necessary.	-	Rassie van der Westhuizen	Ongoing	Confirm compliance and justify emissions
2. Operation of	by noise, dust and emissions.	Vehicles to be regularly serviced and well-tuned.			Ongoing	
poultry abattoir		Operations to be undertaken during working hours only.			Ongoing	
	Protecting the quality of surface and ground water.	Machinery should be properly maintained at all times.		Rassie van der Westhuizen	Ongoing	Initialise water monitoring to take place at least quarterly.
		Servicing of machinery should take place only in specific demarcated and protected areas.			Ongoing	
		Measures should be taken for the proper disposal of oils, grease, oil filters, rags, etc.			Ongoing	
	Controlling sewage and domestic waste disposal by workers.	Proper ablution facilities should be provided i.e. chemical toilets at appropriate locations on site if necessary; else existing facilities must be used.		Rassie van der Westhuizen	Before onset of construction	Confirm compliance and monitor site to ensure that domestic waste and

Activities	Environmental Objectives	Auditable Management and Mitigation Measures	٧	Person Responsible	Timing	Requirement for "sign-off" report
		Workers should be made aware of the risk of soil water contamination.			Before onset of construction	construction rubble has been removed.
		Domestic waste should be disposed of in appropriate containers, and removed to the nearest municipal waste-disposal site.			Weekly	
	Preventing fires.	Cooking and heating fires permitted only in designated areas with appropriate safety measures.		Rassie van der Westhuizen	Ongoing	Initialise and monitor a fire prevention and response plan.
		Adequate firefighting equipment should be available, as prescribed by the relevant safety standards and legislation.			Ongoing	
	Minimising soil compaction, loss of fertility and erosion.	Appropriate measures should be taken to reduce the risk of erosion from unprotected slopes i.e. diversion berms, ponding pools, and not exceeding angles of repose of stockpiled material.		Rassie van der Westhuizen	Ongoing	Confirm compliance.
		All unprotected slopes should be rehabilitated concurrent with construction.			Ongoing	
	Controlling the temporary disturbance of fauna.	The proposed expansion will take place within the footprint of the existing abattoir and there will be no impact on fauna.		Rassie van der Westhuizen	Ongoing	Confirm compliance.
		No fauna found on the site will be killed.			Ongoing	
	Ensuring the safety of workers and the public.	Access to the construction site to be controlled at all times.		Rassie van der Westhuizen	Ongoing	Erection of safety fence and controlled entry points to the site.
	Minimising visual and audible impacts that may occur as a	The proposed expansion will take place within the footprint of the existing abattoir and will not be visible or audible from anywhere outside of the site.		Rassie van der Westhuizen	Before onset of construction	Establishment of a tree line.

Activities	Environmental Objectives	Auditable Management and Mitigation Measures	٧	Person Responsible	Timing	Requirement for "sign-off" report
	result of vehicle exhausts, dust and noise from machinery.					
		Operational Phase				
1. Operation of	Managing the disposal of	Sewage from flush-toilets flows to a		Rassie van der	Ongoing	Confirm compliance with
abattoir facility	sewage, waste and litter.	septic tank. Household waste is removed to the nearest authorised municipal landfill site.		Westhuizen	Weekly	good practice.
		Litter is controlled by good practice.			Ongoing	
	Preventing wash water from contaminating surface and	The abattoir is washed daily the removal of blood, feathers and DOA's.	Rassie van der Westhuizen	Daily	Water quality to be tested quarterly.	
	ground water.	The abattoir washed using a high pressure (16bar) sprayer, minimising the amount of water used.			Daily	Confirm compliance.
		Equipment is not washed with water, but rather using a foam sanitizer (F29) which is applied as dry foam and allowed to evaporate.			Weekly	
	Disposal of blood, feathers, DOA's and wash water.	Blood, feathers and DOA's will be transported to a rendering plant on a daily basis.		Rassie van der Westhuizen	Daily	
		All wash water will be collected through a drain system, screened and skimmed repeatedly to remove blood, fat and other solids.			Immediately and ongoing	
		All solids will be removed to the rendering plant.			Daily	
		The remaining water will be treated in aerobic dams before being used for irrigation of vegetable fields by a neighbouring farmer.			Immediately and ongoing	

Activities	Environmental Objectives	Auditable Management and Mitigation Measures	٧	Person Responsible	Timing	Requirement for "sign-off" report		
	Minimising air pollution.	Waste should be managed strictly according to the Waste Management Plant to prevent excessive odour.		Rassie van der Westhuizen	Ongoing	Confirm compliance.		
Decommissioning and Closure Phase								
This phase is not fore	This phase is not foreseen for this project.							

# c) Monitoring and reporting

Monitoring of all activities and proposed mitigation measures should adhere to the following program:

- The holder of the ROD (Record of Decision) must conduct regular monitoring of all environmental management measures and components to ensure compliance with the program's provisions.
- The Environmental Compliance Officer (ECO) will provide ongoing and regular reports on the progress of implementing the program.
- An ECO should be appointed to conduct external environmental audits every two months during construction and every six months once construction is completed.

#### Roles and responsibilities for executing monitoring programs

It is the responsibility of the holder of the ROD to appoint an ECO before any construction commences. The ECO will then be responsible for environmental training of contractors and employees, as well as conducting external environmental audits according to the specified timeframe.

### Environmental Monitoring

Environmental Monitoring involves the ongoing assessment of the status and condition of environmental elements. Its primary objective is to identify changes occurring in the environment over time, encompassing the measurement and documentation of physical, social, and economic variables associated with development impacts. The monitoring program serves not only to verify compliance with the Environmental Management Programme (EMPr) as outlined in contract or work instruction specifications but also to detect environmental issues and impacts that may not have been accounted for in the EMPr. These unanticipated impacts could potentially lead to significant environmental consequences, necessitating corrective action. Monitoring activities should be integrated into the contract or work instruction to ensure comprehensive oversight of environmental aspects throughout the project lifecycle.

### Internal performance audits

It is advisable for the site manager to conduct regular performance audits, aligning with the approved Environmental Management Plan (EMPr). During these audits, each environmental management specification should be assessed based on the following criteria:

- Full Compliance (no action required)
- Satisfactory Performance (some remedial/preventative actions needed)
- Unsatisfactory Performance (remedial actions required)

The performance monitoring report should encompass all compliance issues, detailing any corrective actions taken, permits, licenses, and conditions specified in contract documentation. These reports should be accessible to the appointed Environmental Control Officer (ECO).

### External Compliance Audits

An independent and qualified Environmental Compliance Officer (ECO) should be appointed to oversee site operations and ensure compliance with the approved Environmental Management Plan (EMPr). External compliance audits must be conducted every two months during the construction phase and every six months during operation.

The goal is to assess each environmental management specification using a scoring system, with the following categories:

- Full compliance
- Satisfactory performance
- Unsatisfactory performance
- No action required

# d) Environmental Awareness Plan

#### Environmental awareness training

Environmental awareness training should be an integral part of the induction process for all personnel employed at the site. To ensure the efficacy of this training, placards containing up-to-date information about environmental aspects will be regularly updated and distributed. Should the Environmental Compliance Officer (ECO) or the site manager deem it necessary to update any aspect of the environmental awareness training, they will have the discretion to do so.

It is advisable that environmental awareness training sessions are conducted at least every six months to ensure that personnel are informed about any updates to environmental goals in relation to ongoing activities. The effectiveness of the team in responding to environmental incidents is contingent upon the managerial efficiency of the site manager and their ability to train employees to be knowledgeable about environmental impacts.

Contractors and applicants must ensure that comprehensive environmental training is provided. All employees should receive an induction presentation on environmental awareness, preferably delivered in their native language where feasible. The environmental training should cover essential aspects including:

- Emphasising the importance of compliance with the Environmental Management Plan (EMP).
- Conducting construction activities in an ecologically sound manner, considering sensitive ecological areas near the site such as drainage channels or streams.
- Protecting and preserving the historical and archaeological heritage of the site.
- Adhering to all environmental policies and procedures.
- Understanding the significant environmental impacts, both actual and potential, arising from their activities.
- Recognizing the environmental benefits associated with improved personal performance.

### Dealing with risks and accidents

Preventing and managing risks associated with prospecting operations relies on thorough preparation and planning prior to any incidents. It is essential to have all relevant information and procedures in place to ensure the correct response and remediation measures are enacted when necessary. The approved Environmental Management Plan (EMPr) must be readily available on site, containing comprehensive management plans aimed at preventing or mitigating environmental pollution or degradation.

Additionally, maintaining an Incident Register and a Complaints Register on site is crucial. These registers should be promptly completed in the event of any environmentally detrimental incidents or upon receiving complaints. Keeping detailed records in these registers is essential for both internal review and external reporting purposes, ensuring transparency and accountability in environmental management practices.

Appendix F1

Storm water management plan

**Recommendations for Storm Water Management** 

for

# EAGLES VALLEY POULTRY ABATTOIR

# REF NO. NWP/EIA/05/2024

Prepared by:

**Bucandi Environmental Solutions** 



Project Manager: Dr. Hélen Prinsloo (D.Tech) (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP) EAPASA 2022/5586

April 2024

# 1. DETAILED DESCRIPTION OF PROPOSED PROJECT

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day The need for a Basic Assessment is triggered by Listing 1; activity 38(i) in GN R327 dated 4 December 2014 and amended on 07 April 2017. The expansion will not involve an expansion in the building footprint. The site is located on an area that has an existing poultry abattoir. The project will entail the following:

- Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day.
- Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m2 in total) will be erected for additional cool storage. This will take place in an area that is already paved.
- The footprint of the development will not expand.
- Due to upgraded technology, waste water will be reduced from 1 000 m3 to 700 m3 per day.

# 2. OBJECTIVES OF STORM WATER CONTROL

a) To reduce the potential impact on surface water run-off.

- b) To ensure that the surface water run-off quality does not impact on the area and receiving environment.
- c) To reduce erosion and contamination of surface water by effective storm water control.

# 3. STORM WATER CONTROL MANAGEMENT MEASURES

- a) Before any construction takes place the proposed area for the development should be pegged out. All construction activities should take place within these areas in order to reduce the footprint of the proposed activity and therefore the potential impact on surface water run-off.
- b) Storm water related infrastructure should be inspected on a regular basis in order to ensure that the structures are functional and do not cause soil erosion.
- c) Effective storm water measures should be implemented to minimise soil erosion, such as:
  - The storm water drainage system must be maintained (free-draining) and not contaminated by other waste sources. Storm water must be kept separate from the sewage or any other effluent system.
  - Storm water must be diverted away from bird holding areas, chemical storage areas and wastewater treatment areas.
  - Erosion prevention structures or vegetation should be placed at concentration points to reduce water velocity within the drainage system.

Appendix F2

Odour management plan

**Recommendations for Odour Management** 

for

# EAGLES VALLEY POULTRY ABATTOIR

# REF NO. NWP/EIA/05/2024

Prepared by:

**Bucandi Environmental Solutions** 



Project Manager: Dr. Hélen Prinsloo (D.Tech) (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP) EAPASA 2022/5586

April 2024

# 1. DETAILED DESCRIPTION OF PROPOSED PROJECT

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day The need for a Basic Assessment is triggered by Listing 1; activity 38(i) in GN R327 dated 4 December 2014 and amended on 07 April 2017. The expansion will not involve an expansion in the building footprint. The site is located on an area that has an existing poultry abattoir. The project will entail the following:

- Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day.
- Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m<sup>2</sup> in total) will be erected for additional cool storage. This will take place in an area that is already paved.
- The footprint of the development will not expand.
- Due to upgraded technology, waste water will be reduced from 1 000 m<sup>3</sup> to 700 m<sup>3</sup> per day.

# 2. OBJECTIVES OF ODOUR CONTROL

a) To prevent or minimize ambient air pollution as a result of odour emissions.

# 3. ODOUR CONTROL MANAGEMENT MEASURES

a) All surfaces, floors and walls will be sprayed down with water using pressure hoses on a daily basis. On a weekly basis it will be treated with a foam detergent that will be left to evaporate. All wash water will be collected through a drain system, screened and skimmed to remove blood, fat and other solids (see solid waste management above).

b) Small amounts of additional solid waste will be produced by cleaning the wash water (see liquid effluent below) that will be disposed of as follows:

Blood, feathers and bones will be collected by D & K Landbouchemies CC twice a day. Wash water will be discharged into the municipal sewage system. Dead on arrivals (DOA's), condemned chickens and portions are collected by a registered crocodile breeding farm (Inyoni Estate) daily in accordance with regulations. The dead-on arrivals (DOA's), condemned chickens and portions are used to feed crocodiles only and not for human consumption.

c) A small amount (less than 1 ton per month) of manure will be produced monthly by the slaughtering, meatpacking and intestinal handling processes. The manure will be used as fertilizer in agricultural fields.

Appendix F3

Waste management plan

Integrated Water and Waste Management Plan

for

# EAGLES VALLEY POULTRY ABATTOIR REF NO. NWP/EIA/05/2024

Prepared by: Bucandi Environmental Solutions



Project Manager:

Dr. Hélen Prinsloo (D.Tech) (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP)

April 2023

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### **1.** INTRODUCTION AND BACKGROUND

# 1.1 Background

Eagles Valley Poultry abattoir is located on Portion 5 of the farm Johannes 438 JQ Madibeng Local Municipality, Bojanala District Municipality, Northwest Province. It is situated 17 km southwest of Hartbeespoort on the R560 at GPS co-ordinates are 25°49'28.39"S; 27°43'49.21"E (Figure 1).

An Environmental Authorisation (REC12/2011 NW) was issued for the abattoir on 22 November 2017. The abattoir currently has capacity to slaughter 84 000 head of poultry per day and is preparing to increase capacity to 125 000. The predominant waste streams resulting from the activity includes general waste, feathers, intestines, bones and blood. The abattoir is washed daily with pressure washers after all discard mortalities have been removed. This wash water undergoes an intricate process before being discharged as irrigation on vegetable fields on a neighbouring property. The purpose of this Integrated Water and Waste Management Plan (IWWMP) is to ensure that the systems used for purifying of the water are adequate and forms part of the enforceable Environmental Management Programme (EMPr) for the abattoir.

# **1.2 Details of the proponent**

Company name:	Eagles Valley Poultry
Physical address:	Plot B 48, Remhoogte, Skeerpoort, 0232
Contact person:	Mr. Gerald Gous
Designation:	General Manager
Telephone number:	012 207 9915 / 16; 083 627 4864
Email address:	gous@eaglesvalley.co.za

### 1.3 Details of Environmental Assessment Practitioner (EAP)

- Company name: Bucandi Environmental Solutions
- Reg. No: 2009/087537/23
- Physical address: 13 Krom Street Potchefstroom 2520
- Postal address: P. O. Box 317 Viljoenskroon 9520

Project coordinator: Dr. Hélen Prinsloo

Telephone number: 076 682 4369 Bucandi Environmental Solutions

Email address:	helen@bucandi.co.za
Qualification:	D. Tech (Conservation Management)
Experience:	15 years
Affiliation:	SACNASP Pri.Sci.Nat 400108/11
Assistant:	Marika Smook
Telephone number:	076 422 3484
Email address:	info@bucandi.co.za

# 2. LOCATION OF PROPOSED ACTIVITY

Eagles Valley Poultry abattoir is located on Portion 5 of the farm Johannes 438 JQ Madibeng Local Municipality, Bojanala District Municipality, Northwest Province. It is situated 17 km southwest of Hartbeespoort on the R560 at GPS co-ordinates are 25°49'28.39"S; 27°43'49.21"E (Figure 1).

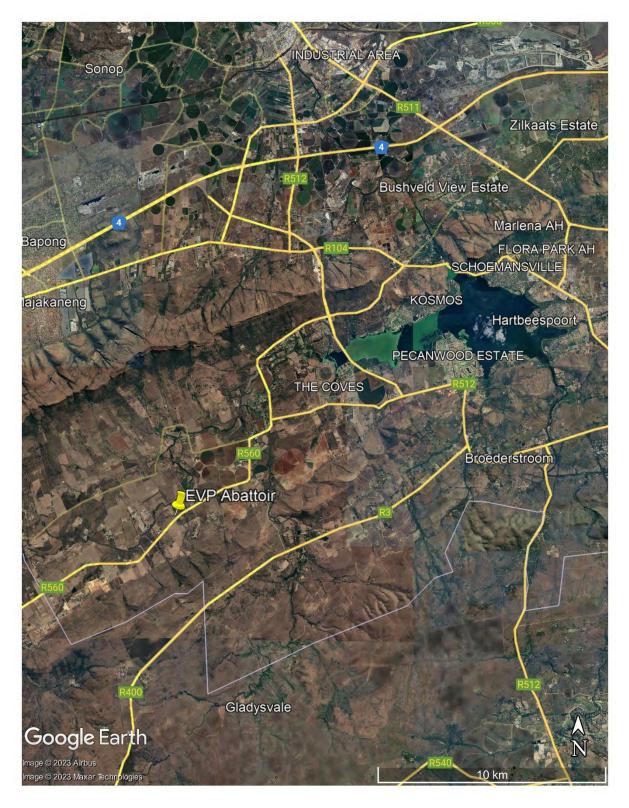


Figure 1: Locality map for Eagles Valley Poultry Abattoir

# 3. WASTE DESCRIPTION

### 3.1 Waste classification

The waste generated at the EVP abattoir consists of general waste, hazardous waste, sewage and organic waste.

General waste is produced by the day-to-day operations of the facility and the associated office buildings. It consists of household and office waste such as paper, food wrappings, cool drink cans etc.

Hazardous waste is very limited and consist of empty chemical containers and discard chemicals such as used oil (from servicing equipment).

Sewage is produced at the office buildings, at the abattoir building and at the ablution facilities where workers shower twice daily.

Organic waste is produced at the abattoir and consist of solid waste and liquid effluent. Solid waste consists mainly of discard carcasses, feathers, bones and solids that have been isolated from the purifying plant. Liquid waste consists of the wash water that is collected from the abattoir and enters into the purifying plant. This waste contains some solid matter, intestinal matter and blood from the slaughtering activities. The purifying plant that is used to recycle and purify the liquid waste forms the main focus of this IWWMP.

### 3.2 General waste

The facility produces 300 - 340 kgs of general waste daily. Bins should be provided at various locations on the site. General waste should be separated into plastic, paper, cans, food and non-recyclable waste. It should be removed from site once a week to a licensed landfill.

### 3.3 Hazardous waste

Hazardous waste including chemicals, cleaning agents, and veterinary products should be stored separately designated containers with proper labeling. A licensed hazardous waste disposal company should be contracted to ensure the safe collection, transport, and disposal of hazardous waste.

### 3.4 Sewage

Sewage is collected in septic tanks. The tanks should be cleaned monthly by using a honeysucker to collect sewage and dispose of it at a licensed sewage treatment facility.

### 3.5 Organic waste

Approximately 28 000 - 34 000 kgs of organic waste is created daily. Solid waste such as discard carcasses, feathers and bones should be disposed of at a rendering plant. The remainder of the organic waste ends up in the wash water. This mixture of wash water, blood, intestinal matter and remnants of solid waste is referred to as "sludge" where it enters the purifying plant. Up to 850 m<sup>3</sup> of water is used daily during the slaughtering and washing

activities. Approximately 30 m<sup>3</sup> of sludge enter the purifying plant hourly. The purification of the sludge to a point where it can be used to irrigate vegetable fields constitutes the main focus of this report.

#### 4. LIQUID EFFLUENT AND WATER PURIFICATION

Organic waste as described in Section 3.5 is washed out of the abattoir with water, resulting in a sludge that needs to be purified before being discharged.

Water that is used to washed away blood is collected directly into a "blood water tank". The remaining water exiting the plant flows into a bin where feathers are separated from the water. The feathers are removed and transported to the "blue tank" which contains all the waste that is collected by a rendering plant. A truck from the rendering plant parks under the "blue tank" for the feathers to be dumped, then under the blood water tank for that to be dumped, and then removes this to the rendering plant.

After the feathers are removed, the water runs in an underground pipeline into a second bin/pit. Stormwater from the site is collected in concrete canals and also flows into this pit. The solids are removed using a separator. The sludge is then pumped through a flocculent to bind any remaining solids. The bound solids float on top of the water and is scraped off. This process is repeated until all the solids have been removed. All the solids also go to the "blue tank" to be removed to a rendering plant.

After removal of the solids, the sludge enters a sludge compressor where all the water is pressed out the sludge. The compressed sludge is then added to the "blue tank" to be taken to the rendering plant.

The remaining water is directed to the first aerobic dam. Bacteria is added to the aerobic dams to digest any remaining solids in the water. The bacteria and any remaining solids collect on top of the water. The water is then taken from the bottom of the dam, underground, to a second aerobic dam. Water in the aerobic dams is continuously mixed and aerated to stimulate bacterial activity.

From the second aerobic dam, water is again pumped underground to a third dam which acts as a retention dam for clean water. It is pumped from the bottom of the dam and used for irrigation purposes by the farmer who owns the property. Any overflow is directed to the river. The water is tested monthly and TDS (total dissolved solids) concentration meets the requirements for being discharged into the river.

### 4. COMPLIANCE AND REPORTING

Records for the removal of all the waste streams indicated above should be kept. It is also crucial that monthly TDS testing continues to ensure that the cleaned water is suitable for discharge. Records of TDS testing should be readily available to comply with all the relevant legislation.

The waste management should form part of Environmental Audits that are done at the abattoir at least twice a year.

Bucandi Environmental Solutions

### 5. UNDERTAKING

The writer herewith confirms

- a) the correctness of the information provided in the report
- b) the inclusion of inputs and recommendations from the relevant reports

00

Signature (Dr. Hélen Prinsloo) Ecologist Environmental Assessment Practitioner Bucandi Environmental Solutions

Signed at Potchefstroom on this 10<sup>th</sup> day of April 2024.

Appendix F4

Bio-security plan

Bio-security plan

for

# EAGLES VALLEY POULTRY ABATTOIR

REF NO. NWP/EIA/05/2024

## Prepared by:

**Bucandi Environmental Solutions** 



Project Manager: Dr. Hélen Prinsloo (D.Tech) EAPASA 2022/5586 (*Pr.Sci.Nat.*) Reg. No. 400108/11 (SACNASP)

April 2024

## 1. DETAILED DESCRIPTION OF PROPOSED PROJECT

Eagles Valley Poultry is proposing the upgrade of an operational poultry abattoir on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area. The abattoir currently has capacity to slaughter 58 000 units per day and will upgrade to a capacity to slaughter 100 000 chickens per day The need for a Basic Assessment is triggered by Listing 1; activity 38(i) in GN R327 dated 4 December 2014 and amended on 07 April 2017. The expansion will not involve an expansion in the building footprint. The site is located on an area that has an existing poultry abattoir. The project will entail the following:

- Machinery and equipment inside the abattoir building will be upgraded and the number of shifts will be increased to 10 shifts per week to expand the capacity from 58 000 to 100 000 poultry per day.
- Two small, modular buildings (7 m x 4 m and 11 m x 3 m respectively = 61 m<sup>2</sup> in total) will be erected for additional cool storage. This will take place in an area that is already paved.
- The footprint of the development will not expand.
- Due to upgraded technology, waste water will be reduced from 1 000 m<sup>3</sup> to 700 m<sup>3</sup> per day.

## 2. OBJECTIVES OF BIO-SECURITY CONTROL

- a) To prevent diseases not occurring on the farm from entering the farm and those occurring on the farm from spreading to other farms, e.g. diseases such as avian influenza and Newcastle disease, etc.
- b) To reduce the risk of zoonotic diseases such as salmonella becoming established and to limit the occurrence and spread of diseases.
- c) To help protect neighbours, public health and the rural areas.

## 3. MEASURES TO BE IMPLEMENTED FOR BIO-SECURITY CONTROL

Biosecurity measure will be implemented according to the guidelines given by the South African Poultry Association. These included, but are not limited to the following:

## a. Cleaning and disinfecting

- Visitors, and employees must wash hands before entering and leaving the farm. Acceptable methods include waterless gels, disinfecting hand wipes, or soap and water.
- Clean work clothes should be worn to prevent the spread of disease. Proper clothing requirements are coveralls, hairnet, gloves, and plastic boots. The disposable clothing should be disposed of on the farm before the individual leaves the premises.
- Employees and visitors will be required to shower upon entering the farm and change into the clothing provided as described above.
- Employees and visitors will be required to shower upon exiting the farm and change back into their own clothing. Work clothes will be left on the farm and cleaned daily.
- Workers living on the farm premises will have designated clothing to be worn while on the poultry farm. If a person leaves the premises they should change clothes, including footwear, before leaving.
- Hands will be disinfected before leaving the dressing area and before entering each house.
- Boots will be dipped in the footbaths provide at all the entrances, exits, buildings and the abattoir.
- All equipment used inside the abattoir will be cleaned and disinfected prior to entering and after exiting the building.
- Equipment will not be shared between farms, unless thoroughly cleaned and disinfected.

## b. Isolation

- Vehicles will be parked in a designated parking area away from abattoir.
- The perimeter fence will be kept in good repair.
- No open bodies of water will be used as a source for poultry drinking water or for cooling.

## c. Vehicle and foot traffic control

- Nobody will be allowed to enter the facility unless biosecurity rules are followed.
- All visitors will sign a visitor log book and indicate recent bird exposure.
- Only visitors with a specific purpose for being on the premises will be allowed to enter the facility.
- A biosecurity sign stating "no entrance" will be posted on all entrances to poultry housing areas.
- Tires of all the vehicles will be disinfected upon entering and exiting the farm.
- Footbaths with disinfectant will be placed at the entrance of each house and should be used before entering and after leaving the poultry house. Each footbath should be a minimum of 3 cm deep with the proper dilution of disinfectant.
- Hands will be disinfected before entering and after leaving the poultry house.
- Doors to each house will be kept locked to decrease unauthorized entry.

## d. Pest control

- Rodents will be controlled with bait stations.
- Wild birds will not be allowed to nest on or around the abattoir and bird deterrents will be used to discourage wild birds from perching near the abattoir.
- Areas around the abattoir will be kept clean from litter and grass will be short and well-maintained.
- An area of at least 30 m around the abattoir and building will be landscaped and mowed.
- Storm water ditches will be well maintained and cleared from any obstructions daily to allow for water to leave the area and not puddle.
- Any activity of pets, wild animals, wild birds and other farm animals around the abattoir will be prevented as far as possible.
- Any feed spills will be cleaned up promptly to minimize a food source for wild animals and birds.

## e. Disposal of organic waste

- Blood, feathers, bones and sludge will be collected by a contractor, D & K Landbouchemies CC twice a day
- DOA's, condemned chickens and portions are collected by a registered crocodile breeding farm (Inyoni Estate) on a daily basis.
- All wash water will be collected through a drain system, screened and skimmed repeatedly to remove blood, fat and other solids. All solids will be removed to the rendering plant. The remaining water will be cycled through 5 dams (capacity for 500 m3 each) for cleaning before being used for irrigation of agricultural fields. See waste management plan attached in Appendix I3.

## f. General

- Employees are not allowed to keep birds of any type at their place of residence.
- All employees have to restrict their contact with birds and people who are associated with birds.
- Employees and visitors are not allowed on site for 72 hours after visiting other poultry operations.

Disease breakouts should be reported immediately to the State Veterinarian's Office on 012 319 7488 and instructions should be strictly followed.

Appendix F4

Contractors Agreements.

Appendix F6

Screening Tool Report

## SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

## EIA Reference number: Eagles Valley Poultry (PTY) Ltf

**Project name:** Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day.

**Project title:** Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day on Portion 5 of the farm Johannes 438 JQ situated in Bojanala Platinum District Municipality within Madibeng Local Municipality area.

**Date screening report generated:** 08/04/2024 10:44:54

Applicant: Rassie Van Der Westhuizen

Compiler: Bucandi Environmental Solutions

**Compiler signature:** 

Pringloo

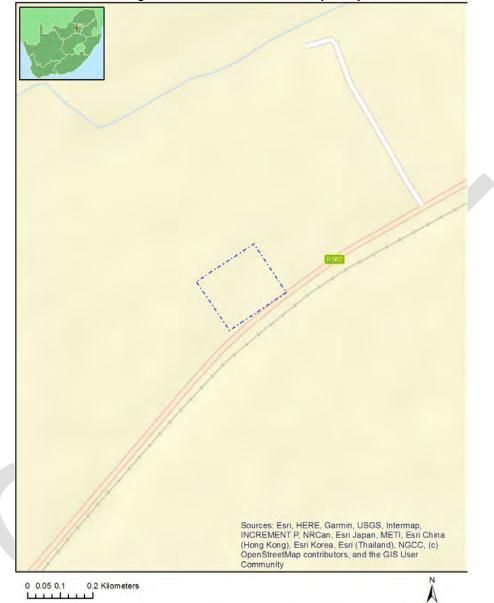
Application Category: Agriculture\_Forestry\_Fisheries|Animal Production

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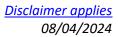
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Orientation map 1: General location	3
Map of proposed site and relevant area(s)	4
Cadastral details of the proposed site	4
Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area	4
Environmental Management Frameworks relevant to the application	5
Environmental screening results and assessment outcomes	5
Relevant development incentives, restrictions, exclusions or prohibitions	5
Proposed Development Area Environmental Sensitivity	
Specialist assessments identified	
Results of the environmental sensitivity of the proposed area.	
MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY	
MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY	9
MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY	10
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# **Proposed Project Location**

## Orientation map 1: General location



General Orientation: Hekpoort expansion of poultry abattoir capacity to slaughter a total of 100 000 chickens per day.



# Map of proposed site and relevant area(s)



## Cadastral details of the proposed site

Property details:

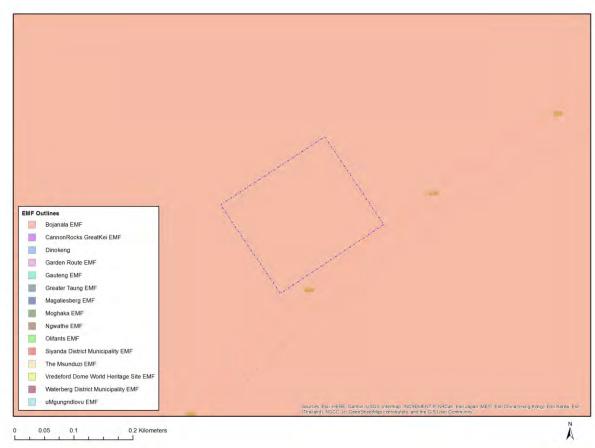
No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	JOHANNES	438	0	25°49'49.28S	27°43'53.26E	Farm
2	JOHANNES	438	5	25°49'33.88S	27°43'58.65E	Farm Portion

Development footprint<sup>1</sup> vertices: No development footprint(s) specified.

# Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2220/AM2	Solar PV	Approved	28.5
2	14/12/16/3/3/1/1297	Solar PV	Approved	17.6

<sup>&</sup>lt;sup>1</sup> "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.



## Environmental Management Frameworks relevant to the application

Environmental Management Framework	LINK
Bojanala EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/Bojanal aEMF.pdf

# Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: Agriculture\_Forestry\_Fisheries | Animal Production.

## Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	https://screening.environment.gov.za/ScreeningDownloads/Developmen
Page 5 of 16	Disclaimer applies

	tZones/Combined_EGI.pdf
Air Quality-Waterberg-	https://screening.environment.gov.za/ScreeningDownloads/Developmen
Bojanala Priority Area	tZones/gg39489_nn1207a.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/Developmen tZones/Combined_GAS.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/Developmen tZones/SACAD_OR_2023_Q3_Metadata.pdf

## Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		Х		
Animal Species Theme			Х	
Aquatic Biodiversity Theme	Х			
Archaeological and Cultural				Х
Heritage Theme				
Civil Aviation Theme		Х		
Defence Theme				Х
Paleontology Theme			Х	
Plant Species Theme			Х	
Terrestrial Biodiversity Theme	X			

## Specialist assessments identified

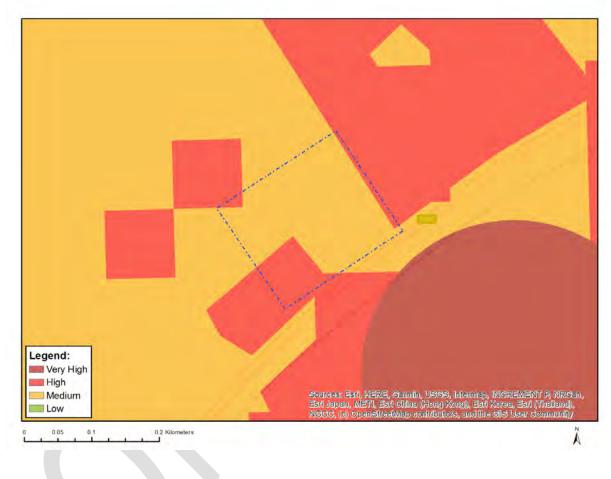
Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

No	Specialist assessment	Assessment Protocol
1	Landscape/Visual Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_General_Requirement_Assessment_P rotocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_General_Requirement_Assessment_P rotocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_ Protocols.pdf

5	Aquatic Biodiversity Impact Assessment	<u>https://screening.environment.gov.za/ScreeningDownloads/Asse</u> <u>ssmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Pr</u> <u>otocols.pdf</u>
6	Hydrology Assessment	<u>https://screening.environment.gov.za/ScreeningDownloads/Asse</u> <u>ssmentProtocols/Gazetted_General_Requirement_Assessment_P</u> <u>rotocols.pdf</u>
7	Traffic Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted General Requirement Assessment P rotocols.pdf
8	Socio-Economic Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_General_Requirement_Assessment_P rotocols.pdf
9	Ambient Air Quality Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_General_Requirement_Assessment_P rotocols.pdf
10	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted_Plant_Species_Assessment_Protocols. pdf
11	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/Asse ssmentProtocols/Gazetted Animal Species Assessment Protoco ls.pdf

## Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.



## MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate- High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low- Moderate/08. Moderate
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

# Legend: Very High Bedium Down Surges Est, HERE Gamm, USQS, Internat, NORREMENT P. NRGart, Sind Society, Community, Sind Society, Sind Society, Sind Society, Sind Society, Sind Society, Sind Society, Community, Sind Society, Commu

## MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at <u>eiadatarequests@sanbi.org.za</u> listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		х	

Sensitivity	Feature(s)
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii
Medium	Reptilia-Kinixys lobatsiana

# Egend: Very High High Medium 2000 - 010 - 0

## MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
х			

Sensitivity	Feature(s)
Very High	ESA 1
Very High	ESA 2

# MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			Х

Sensitivity	Feature(s)
Low	Low sensitivity

## MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Х		

Sensitivity	Feature(s)
High	Within 8 km of other civil aviation aerodrome
Medium	Between 15 and 35 km from a major civil aviation aerodrome

## MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			Х

Sensitivity	Feature(s)
Low	Low Sensitivity

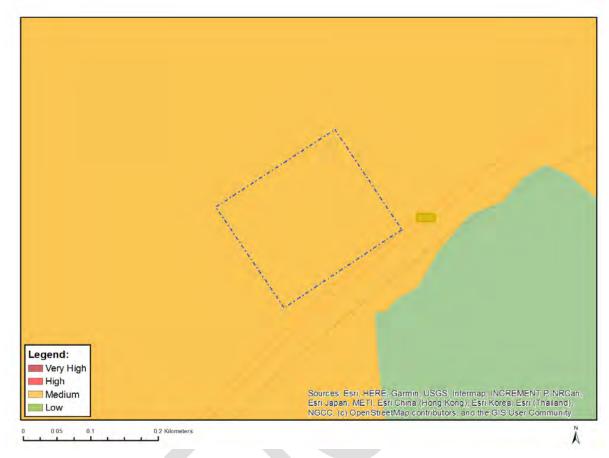
# Egend: Surces Est. HERE, Gamm, USGS, Internap, INOREMENT P. NRGan, Est. Japan, METI, Est. China (Hong Kong), Est. Korze, Est. (Thesanc), NSCO. (c) OpenStreetMap contributors, and the GIS User Gommant). U U U U U U U U U U U U

## MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Х	

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity

## MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at <u>eiadatarequests@sanbi.org.za</u> listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Х	

Sensitivity	Feature(s)
Low	Low Sensitivity
Medium	Xerophyta adendorffii

## MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity	Feature(s)
Very High	CBA 2
Very High	ESA 2
Very High	National Protected Area Expansion Strategy (NPAES)

Appendix G

Curriculum Vitae of EAP

# Curriculum Vitae Hélen Prinsloo

Phone: 076 682 4369 23 Burger Street Viljoenskroon 9520 email: helen@bucandi.co.za

Work experience:	
Job title:	Owner, Ecologist and GIS Technician
Company:	Bucandi Environmental Solutions
Period:	October 2010 - current
Location:	Viljoenskroon, Free State, South Africa
Job description:	Managing my own environmental consulting business
_	Compiling Environmental Authorisations, including Basic Assessment
	Reports
	Conducting specialist ecological studies
	Compile maps and conduct spatial analyses using ArcGIS 9.3 to produce
	deliverables for specialist studies and environmental applications.
Job title:	Environmental Scientist
Company:	Clean Stream Environmental Consultants
Period:	June 2009 – September 2010
Location:	Pretoria, Gauteng, South Africa
Job description:	Compiling the following environmental reports and applications:
	Basic Assessment Reports
	Scoping Reports
	Environmental Impact Assessment
	Environmental Management Program / Plan
	Integrated Water Use Licence Application
	Integrated Water and Waste Management Plan
	Conducting specialist ecological studies
	Leading and participating in public consultation associated with the
	abovementioned procedures.
	Compile maps and conduct spatial analyses using ArcGIS 9.2 to produce
	deliverables for specialist studies and environmental reports.
	Compiling budgets and proposals for environmental reports and applications.
Job title:	Coordinator – South African Crane Working Group (SACWG)
Company:	Endangered Wildlife Trust
Period:	January 2008 - February 2009
Location:	Howick, KwaZulu Natal, South Africa
Job description:	Review and update research strategy continuously.
	Formulate, prioritise and approve research projects as well as ensure
	acceptable quality of all research projects.
	Manage delivery of research work in appropriate manner with time frames.
	Accept overall fundraising responsibility and accountability for SACWG's
	sustainability.
	Write fundraising proposals and perform high-level, strategic donor funding
	activities.

Job title:	Review conservation strategy annually. Compile monthly and annual reports and work plans. Develop and coordinate species action plans. Lobby nationally and internationally to implement crane habitat objectives. Ensure the employment of effective, efficient and suitably qualified staff. Manage a group of 8 administrative and field staff. Ecologist
Company: Period: Location: Job description:	Biological Research Associates August 2006 – December 2007 Tampa, Florida, USA Writing budgets and proposals for environmental monitoring projects. Conducting wildlife surveys to determining the presence and abundance of listed species. Permit preparation and application for relocation of wildlife. Conducting relocation of wildlife such as gopher tortoises, burrowing owls and various other species. Coordinating research projects focused on the conservation of various wildlife species including gopher tortoises, burrowing owls, sandhill cranes, wading birds, snakes, small mammals, etc. Writing management plans for wildlife preservation areas. Completing Environmental Impact Assessments and providing solutions based on a professional assessment. Using ArcGIS and related software to report on all actions. Writing scientific reports. Delineating wetlands based on soil morphology, vegetation and topography. Permit preparation and application for wetland impacts, preservation, reclamation and creation.
Job title: Company: Period: Location: Job description:	<ul> <li>Bio Scientist II</li> <li>Florida Fish and Wildlife Conservation Commission</li> <li>March 2005 – July 2006</li> <li>Spring Hill, Florida, USA</li> <li>Design and implement wildlife monitoring projects such as deer spotlight counts, turkey surveys, bob-white quail surveys, gopher tortoise surveys, shorebird counts etc.</li> <li>Design and implement habitat restoration projects on 34 000 acre wildlife management area making use of mechanical action, chemical applications and prescribed fire.</li> <li>Conducting photopoints and wildlife surveys to monitor the effect of habitat management practices on wildlife and their environment.</li> <li>Conducting prescribed burns.</li> <li>Restoration of scrub habitat and surveying for scrub jays.</li> <li>Apply herbicides to exotic plants.</li> <li>Restoration of hydrology on a 34 000 acre wildlife management area.</li> <li>Oversee construction projects for erosion control.</li> <li>Using ArcGIS and related software to report on management actions.</li> <li>Writing scientific reports.</li> <li>Conduct activities related to conservation of Red Cockaded Woodpeckers such as doing nest inserts, banding, roost checks and relocations.</li> </ul>

Job title: Company: Period: Location: Job description:	Safari coordinator and guide High Adventure / SA Adventure March 2004 – March 2005 Atlanta, Georgia, USA Selling photo and hunting safaris to Southern Africa, Argentina and the USA. Designing marketing material and delivering presentations to prospective clients. Attending conventions to liaise with outfitters and clients in order to compile FIT itineraries. Booking safaris based on FIT itineraries. Using airline software (Sabre) to plan and book airfare related to itineraries. Negotiate contracts with outfitters and airlines. Acting as guide on quail and deer hunts in Georgia and Texas.
Job title: Company: Period: Location: Job description:	<ul> <li>Research Assistant</li> <li>Tshwane University of Technology</li> <li>February 2002 – October 2003</li> <li>Pretoria, South Africa</li> <li>Full-time research towards my master's degree.</li> <li>Studying the ecology of Helmeted Guineafowl on agricultural farmland in order to provide farmers with management plans and to provide hunters with ratios for sustainable utilisation.</li> <li>Constant sight tracking of several flocks of Helmeted Guineafowl.</li> <li>Capturing, tagging and radio-tracking individual guineafowl.</li> <li>Habitat and vegetation analyses.</li> <li>Dissecting approximately 600 guineafowl shot by wingshooters during the hunting season.</li> <li>Shooting and dissecting 5 guineafowl monthly.</li> <li>Collecting morphological, biological and dietary data on dissected specimens.</li> <li>Collecting endo-, ecto- and blood parasites from dissected specimens.</li> </ul>
Job title: Company: Period: Location: Job description:	Collecting and analyzing data on population dynamics and bag size history in order to investigate the sustainability of wingshooting in the area. Supervising up to 15 students at a time that assisted with field research, sight tracking and dissections. Conducting interviews with farmers and completing questionnaires in order to construct a land-use map covering approximately 200 000 hectares. Research Assistant North West University January 2000 – January 2002 Potchefstroom, South Africa Part-time, mostly weekends, field research towards my B.Sc. (Honors) degree. Studying ecology of small mammals as part of a management plan for Mongêna Game Ranch, South Africa. Capturing small mammals using Sherman live traps. Taking morphological measurements of small mammals and releasing them afterwards. Toe-clipping specimens and identifying recaptured specimens to estimate population sizes. Vegetation surveys to establish different habitat types. Relating small mammal surveys to habitat types in order to describe the

	Using the of the ha	of the small mammal species. The occurrence of small mammals as indicators for assessing the status abitat in order to provide advice on the management plan for the Game Ranch.	
Job title: Company: Period: Location: Job description:	Avroy S July 199 Midrand Response existing Supervise Liaising facilitate	Credit Facilitator hlain Cosmetics 06 – December 2000 l, South Africa sible for collecting approximately R2 000 000 per month from clients. sing two credit facilitators. extensively with clients over the phone and in person in order to e their accounts. office duties.	
Publications:	meleagr South Aj	ted variation in morphology of helmeted guineafowl ( <i>Numida</i> <i>is</i> ) from the Riemland of the north-eastern Free State, South Africa. <i>frican Journal of Wildlife Research 35(1): 95 – 96 (April 2005).</i> : H.C. Prinsloo, V. Harley, B.K. Reilly & T.M. Crowe.	
northe <i>Resear</i> Autho		liet of Helmeted Guineafowl ( <i>Numida meleagris</i> ) in the Riemland of the eastern Free State, South Africa. <i>South African Journal of Wildlife</i> <i>urch</i> . ors: Hélen C. Prinsloo, Victor Harley, Prof. B.K. Reilly, T.M. Crowe.	
	South Aj Authors	ing potential protected areas in the Grassland Biome of South Africa. frican Journal of Science 117(3/4)(March 2021). : Hélen C. Prinsloo, Prof. B.K. Reilly, Prof. W. Myburgh. oi.org/10.17159/sajs.2021/7507	
Additional private a	nd consi	Ilting activities.	
June 2002 – August 2	2003: I g t C	Providing advice and help with organising of large gamebird hunts (36 people per hunting party) for Mr. Peter Wales in he northeastern Free State, South Africa. Consulting Mr. Peter Wales and farmers in the northeastern Free State on conservation methods and wingshooting ratios for sustainable utilisation in the area.	
February 2003 – May	2003: C	Consulting Middelburg Collieries on methods of improving the quality of habitat and increasing the numbers of gamebirds on rehabilitated and.	
September 2003:	( r	Consulting farmers in the Arlington region of the eastern Free State on nethods for improving gamebird habitat and ratios for sustainable utilisation.	
September 2003:	() 5	Consulting farmers in the Viljoenskroon region of the northern Free State on methods for improving gamebird habitat and ratios for sustainable utilisation.	
October 2002:		Speaker at conference day of The South African Journal of Wildlife	

Second 2001Second 2001Research. Topic: The ecology of small mammals on Mongêna Game<br/>Ranch, Gauteng, South Africa.June 2003:Abstract of master's dissertation used in NRF's (National Research

Foundation) annual brochure representing the niche area: Decision Support to the Wildlife Industry.

## **Volunteer experience:**

- 2000 2001: Collecting data on the status of wetlands in Mpumalanga, South Africa, for use in the Rennies Wetland Project.
- 2002: Tracking elephants in Kruger National Park to collect data on feeding behaviour and cortisol levels in faeces.

## **Corporate experience:**

Personal assistant to credit manager Credit facilitator Senior credit facilitator

While studying towards my B.Sc. and Honors degrees, I worked fulltime at Avroy Shlain Cosmetics, a corporate company. I was promoted twice during the period 1997 - 2002 and my duties included assisting the credit manager in regular office activities, full credit control (debt collecting) and supervising other credit facilitators.

Education:	
Institution:	Tshwane University of Technology
Location:	Pretoria, South Africa
Period:	2017-2021
Qualification:	D.Tech (Nature Conservation)

Institution:	Tshwane University of Technology
Location:	Pretoria, South Africa
Period:	2002-2003
Qualification:	M.Tech (Nature Conservation) - Cum Laude

Institution:	Northwest University
Location:	Potchefstroom, South Africa
Period:	2000-2001
Qualification:	B.Sc. (Hons.) Zoology - Cum Laude

Institution:UNISALocation:Pretoria, South AfricaPeriod:1996-1999Qualification:B.Sc (Biology)

Institution: Location: Qualification: Subjects: Salomon Senekal Hoërskool Viljoenskroon, South Africa Senior Certificate Afrikaans (1<sup>st</sup> language) - A English - A Mathematics - A Accountancy - A Biology - A Science - B

## Computer skills: MS Office - Expert ArcView / ArcMap / ArcCatalog / GIS / GPS – Expert BPCS - Expert Sabre - Expert Statistica - Intermediate

## Additional training and licences: ArcGIS 9.0

Basic Fire Management Interagency Prescribed Fire School Licensed Restricted Herbicide Applicator Licensed Archeological Resource Monitor Safe-Capture and Immobilisation of Animals Natural Plant Communities of Florida Teambuilding Communication skills Junior management

**References: Dr. Ray Jansen:** Senior Lecturer - Tshwane University of Technology email: jansenr@tut.ac.za Phone: 012 318 6115

**Dr. Henry Davies:** Chairman - KZN Crane Foundation email: henry@kzncrane.co.za Phone: 033 343 3630

**Mr. Tim Snow:** Project Manager - Endangered Wildlife Trust email: snowman@ewt.org.za Phone: 082 802 6223

**Prof. Brian Reilly:** Professor - Tshwane University of Technology email: <u>reillyb@techpta.ac.za</u> Phone: 012 318 5215

**Prof. Tim Crowe:** Professor - University of Cape Town email: Timothy.Crowe@uct.ac.za Phone: 021 650 3292

**Mr. Lee Walton:** Senior Ecologist - Biological Research Associates email: lwalton@entrix.com