THE PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE

APPENDIX G: ENVIRONMENTAL MANAGEMENT PROGRAMME

August 2022

Prepared for:

Prepared by:

Jan-Louis Jordaan

jl.jordaan@enviroworks.co.za

051 436 9675

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

DEDECT	-	Department of Economic, Development, Environment, Conservation and Tourism
DEO	-	Designated Environmental Officer
DFFE	-	Department of Forestry, Fisheries and the Environment
ECO	-	Environmental Control Officer
EIA	-	Environmental Impact Assessment
BAR	-	Basic Environmental Impact Report
EMPr	-	Environmental Management Programme Report
EPC	-	Engineering Procurement Contractor
I&APs	-	Interested and Affected Parties
IDP	-	Integrated Development Plan
NEMA	-	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	-	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NHRA	-	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NSBA	-	National Spatial Biodiversity Assessment
NWA	-	National Water Act, 1998 (Act No. 36 of 1998)
HWC	-	Heritage Western Cape
PPP	-	Public Participation Process
SAHRA	-	South African Heritage Resources Agency
SDF	-	Spatial Development Framework

GLOSSARY OF TERMS

Alien species: A plant or animal species introduced from elsewhere: neither endemic nor indigenous.

Applicant: Any person who applies for an authorisation to undertake an activity or undertake an Environmental Process in terms of the Environmental Impact Assessment (EIA) Regulations – National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) as contemplated in the scheduled activities listed in Government Notice (GN) No R. 327, 325 and 324, as amended.

Biodiversity: The variety of life in an area, including the number of different species, the genetic wealth within each species, and the natural areas where they are found.

Cumulative Impact: In relation to an activity, cumulative impact means the impact of an activity that in it-self may not be significant, but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Ecology: The study of the interrelationships between organisms and their environments.

Environment: All physical, chemical and biological factors and conditions that influence an object.

Environmental Impact Assessment: In relation to an application, to which Scoping must be applied, means the process of collecting, organising, analysing, interpreting and communicating information that is relevant to the consideration of the application.

Environmental Impact Report: In-depth assessment of impacts associated with a proposed development. These forms the second phase of an Environmental Impact Assessment and follows on from the Scoping Report.

Environmental Management Programme: A legally binding working document, which stipulates environmental and socio-economic mitigation measures that must be implemented by several responsible parties throughout the duration of the proposed project.

Heritage resources: This means any place or object of cultural and archaeological significance.

Precipitation: Any form of water, such as rain, snow, sleet, or hail that falls to the earth's surface.

Red Data species: All those species included in the categories of endangered, vulnerable or rare, as defined by the International Union for the Conservation of Nature and Natural Resources.

Riparian: The area of land adjacent to a stream or river that is influenced by stream induced or related processes.

Soil compaction: Soil becoming dense by blows, vehicle passage or other type of loading. Wet soils compact easier than moist or dry soils.

1 INTRODUCTION

This Environmental Management Programme (EMPr), amongst others, describes the mitigation measures and identifies the specific role players that will be responsible for the implementation of the mitigation measures, in order to ensure that impacts on the environment are minimised during the proposed expansion of the existing Supreme Poultry Chicken Processing Plant by increasing the slaughtering and processing poultry from 120 000 units per day to 150 000 units per day and associated recovery, recycling and treatment of chicken waste to feather meal at the Mahikeng Chicken Processing Plant on Erf No. 9907, Mahikeng, North West Province. This EMPr will additionally ensure that the expansion of the facility and its impact on the surrounding community is minimised.

This EMPr must form part of the contractual agreement between the relevant Contractor(s) and the Developer/Applicant.

1.1 NEMA Regulations Report Compliance

Appendix 4 of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) provides the content requirements for EMPr's. The table below lists the relevant requirements, indicates whether the relevant information is included in this report or not, and provides cross-references as to where the relevant information can be found in this report.

Table 1: Environmental Management Programme requirements as per Appendix 4 of the NEMA EIA Regulations, 2014 (as amended).

Reg.	EMPr Content	Included (Yes, No or N/A)	Report Section Reference
(a)	A draft environmental management programme must comply with section 24N of the Act and include -		
	details of: (i) the person who prepared the environmental management programme; and	**Yes**	**Chapter 3**
	(ii) the expertise of that person to prepare an environmental management programme;	**Yes**	**Chapter 3**
(b)	A detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;	**Yes**	**Chapter 4**
(c)	A map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers;	**Yes**	**Chapter 2**

Reg.	EMPr Content	Included (Yes, No or N/A)	Report Section Reference
(d)	A description of the impact management objectives, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including – (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and, (v) where relevant, operation activities;	**Yes**	**Chapter 9**
(f)	A description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to— (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and, (iv) comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable;	**Yes**	**Chapter 7 and 9**
(g)	The method of monitoring the implementation of the impact management actions contemplated in paragraph (f);	**YES**	**Chapter 9**
(h)	The frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);	**YES**	**Chapter 7**
(i)	An indication of the persons who will be responsible for the implementation of the impact management actions;	**YES**	**Chapter 9**
(j)	The time periods within which the impact management actions contemplated in paragraph (f) must be implemented;	**YES**	**Chapter 9**
(k)	The mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);	**YES**	**Chapter 9**
(l)	A program for reporting on compliance, taking into account the requirements as prescribed by Regulations;	**YES**	**Chapter 7**
(m)	An environmental awareness plan describing the manner in which – (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and, (ii) risk must be dealt with in order to avoid pollution or the degradation of the environment; and,	**YES**	**Chapter 8**
(n)	Any specific information that may be required by the Competent Authority.	-	-

1.2 Report Layout

The table below summarises the content layout of this report.

Table 2: Summary of report content layout.

Chapter	Chapter Heading	Content Summary
1	Introduction	Provides a brief background to the proposed project and explains the compliance of this report with regards to Regulation 33 of the NEMA.
2	Map of the Proposed Activity	Provides a Sensitivity Map of the area surrounding the proposed project as well as a map showing the locality of the proposed project.
3	Environmental Assessment Practitioner	Provides details of the EAP who prepared this EMPr and provides information on the expertise of the EAP.
4	Project Description and Listed Activities Covered by this EMPr	Provides a brief project description and describes the relevant project phases and the NEMA Listed Activities triggered.
5	Existing Environmental and Impact Assessment Summary	Summarises the biophysical, social, economic and cultural aspects of the existing environment, and provides a summary of the impact assessment outcome.
6	Recommendations of the EAP	Provides recommendations of the EAP with regards to the Planning and Construction, Operation and Decommissioning phases.
7	Persons Responsible for Implementing this EMPr	Provides information on the persons who will be responsible for implementing this EMPr, and explains requirements with regards to on-site communication, site instruction entries, method statements, and record keeping.
8	Environmental Awareness Plan	Provides information on environmental awareness and risk training, and basic rules of conduct. Also provides an environmental risk plan.
9	Impacts and Mitigation Measures	Provides EMPrs for the relevant project phases.
10	Emergency Response Plan	Provides information on the emergency response plan.
11	Incident Register	Stipulates the content requirements for incident registers.
12	Rehabilitation Measures and Closure Plan	Provides rehabilitation measures and closure plan objectives.

2 MAP OF THE PROPOSED ACTIVITY

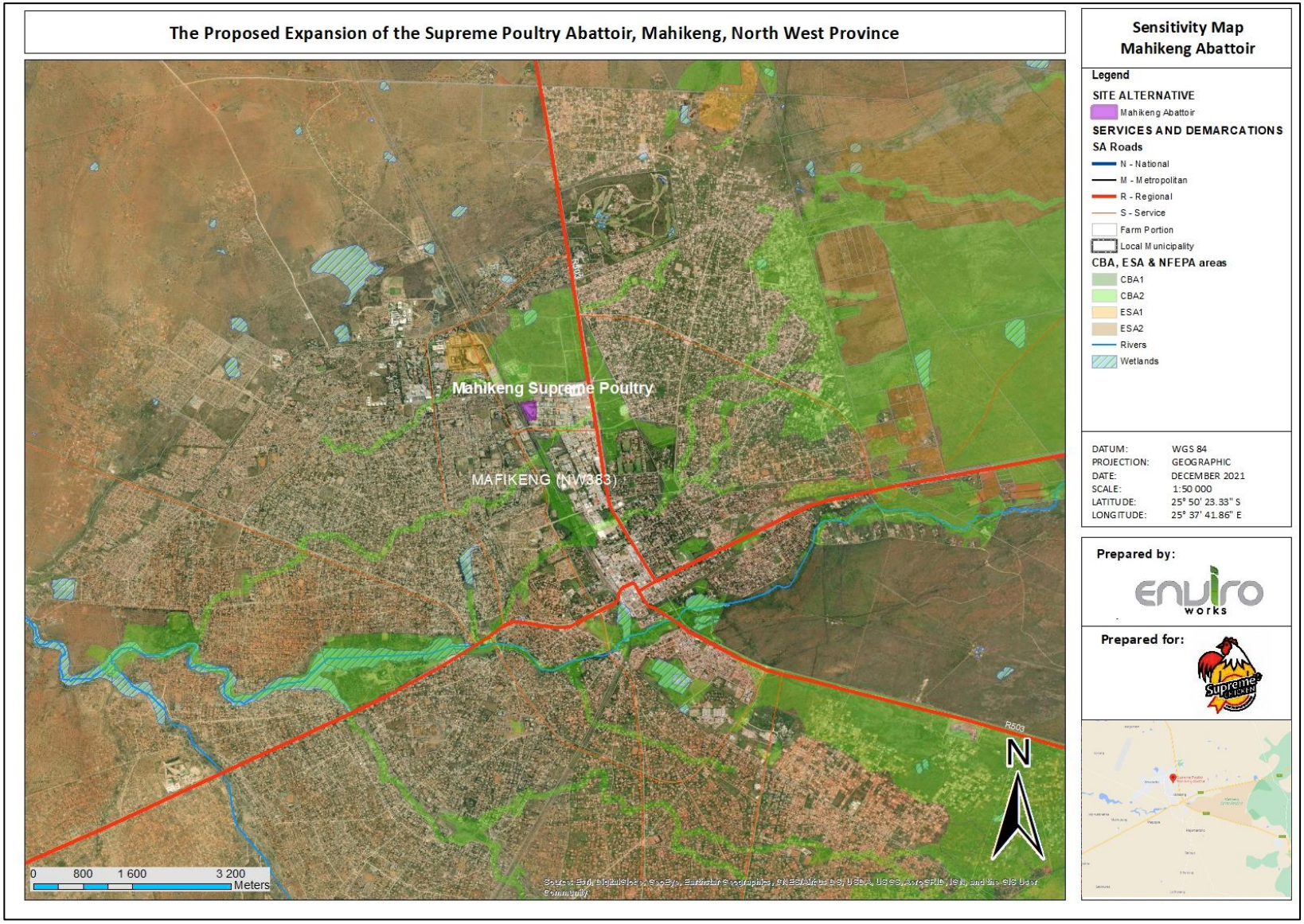

Figure 1: Sensitivity Map of the Processing Facility where the Expansion is proposed

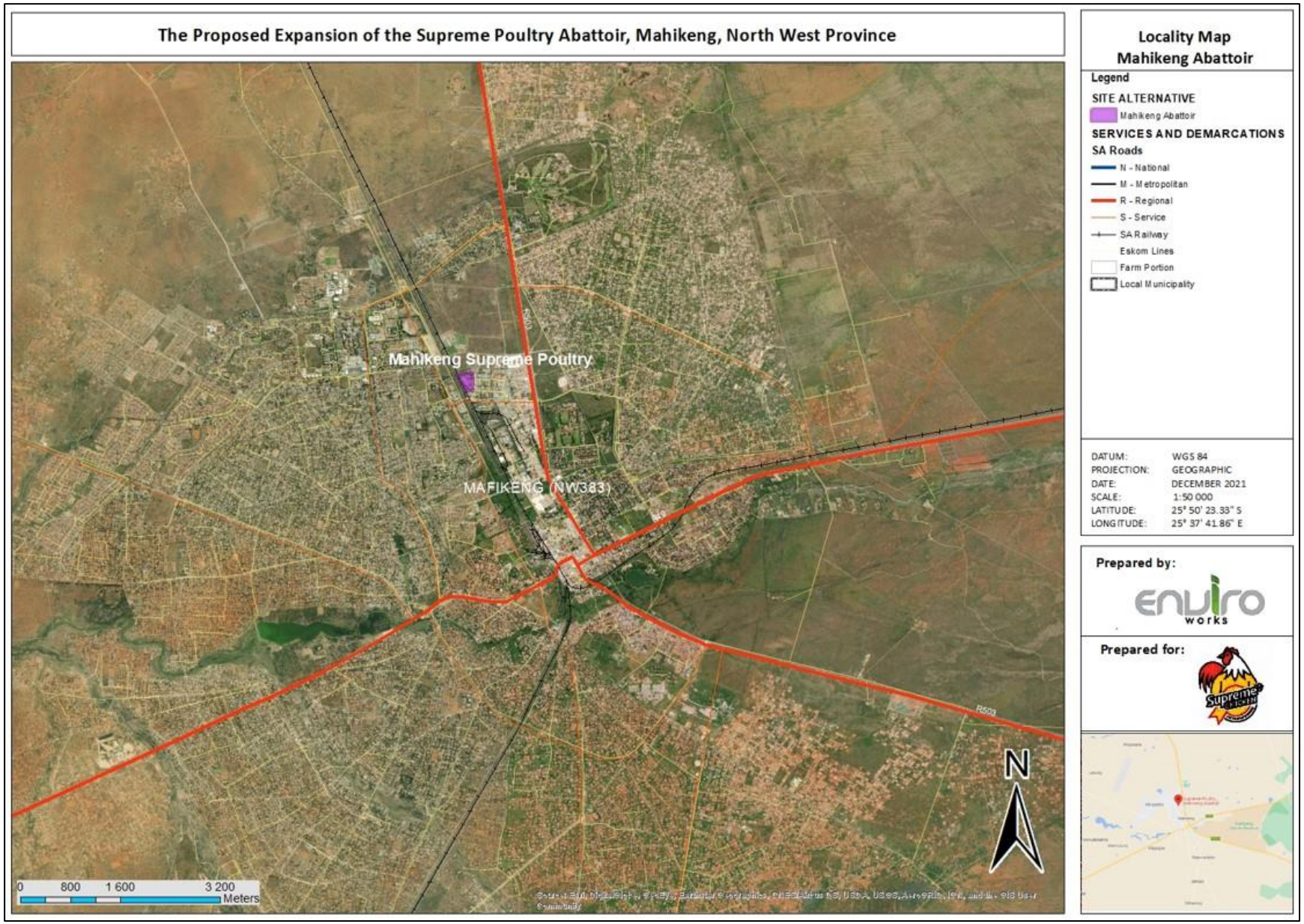

Figure 2: Locality Map of the Processing Facility where the Expansion is proposed

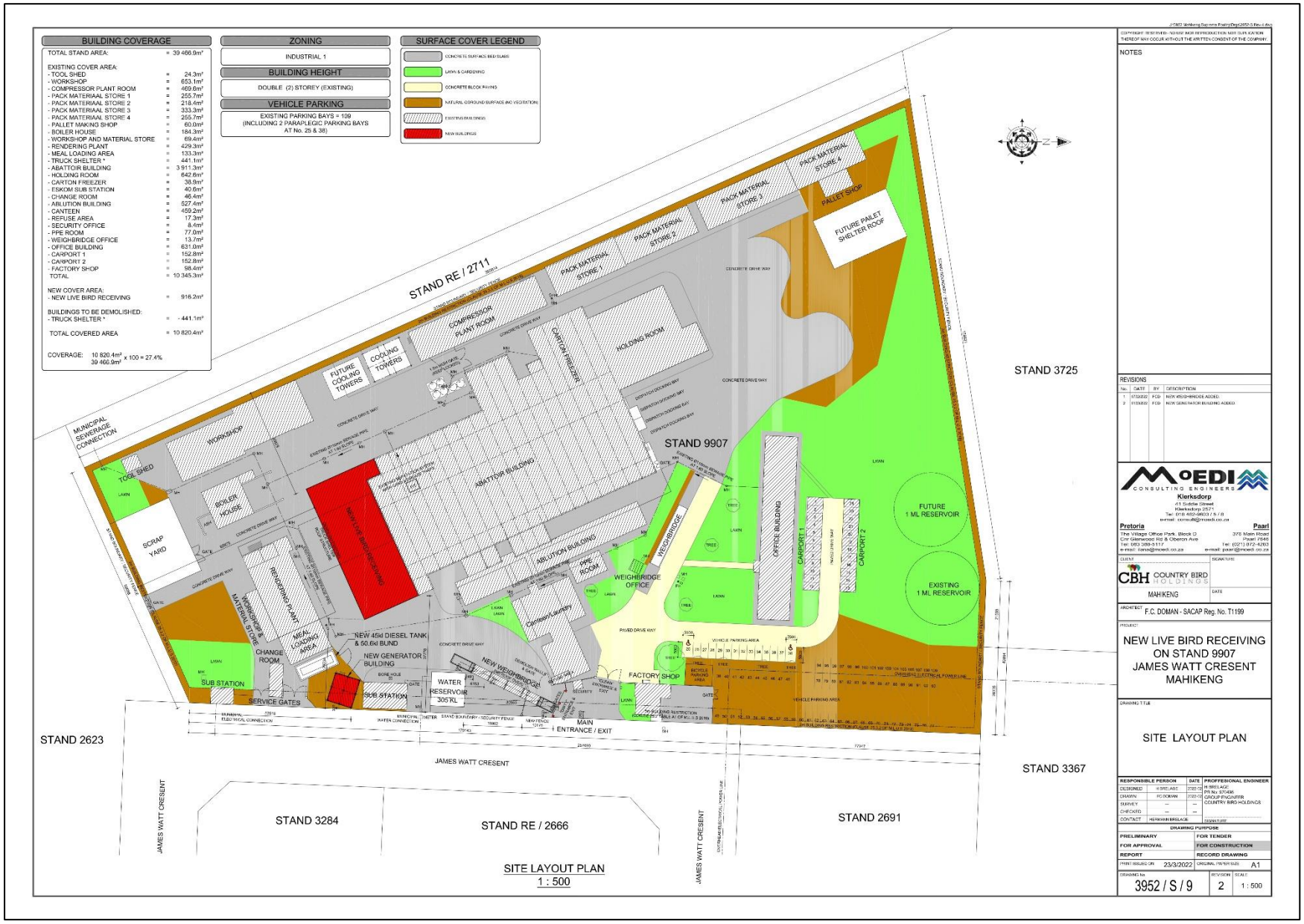

Figure 3: Existing Site Layout Plan

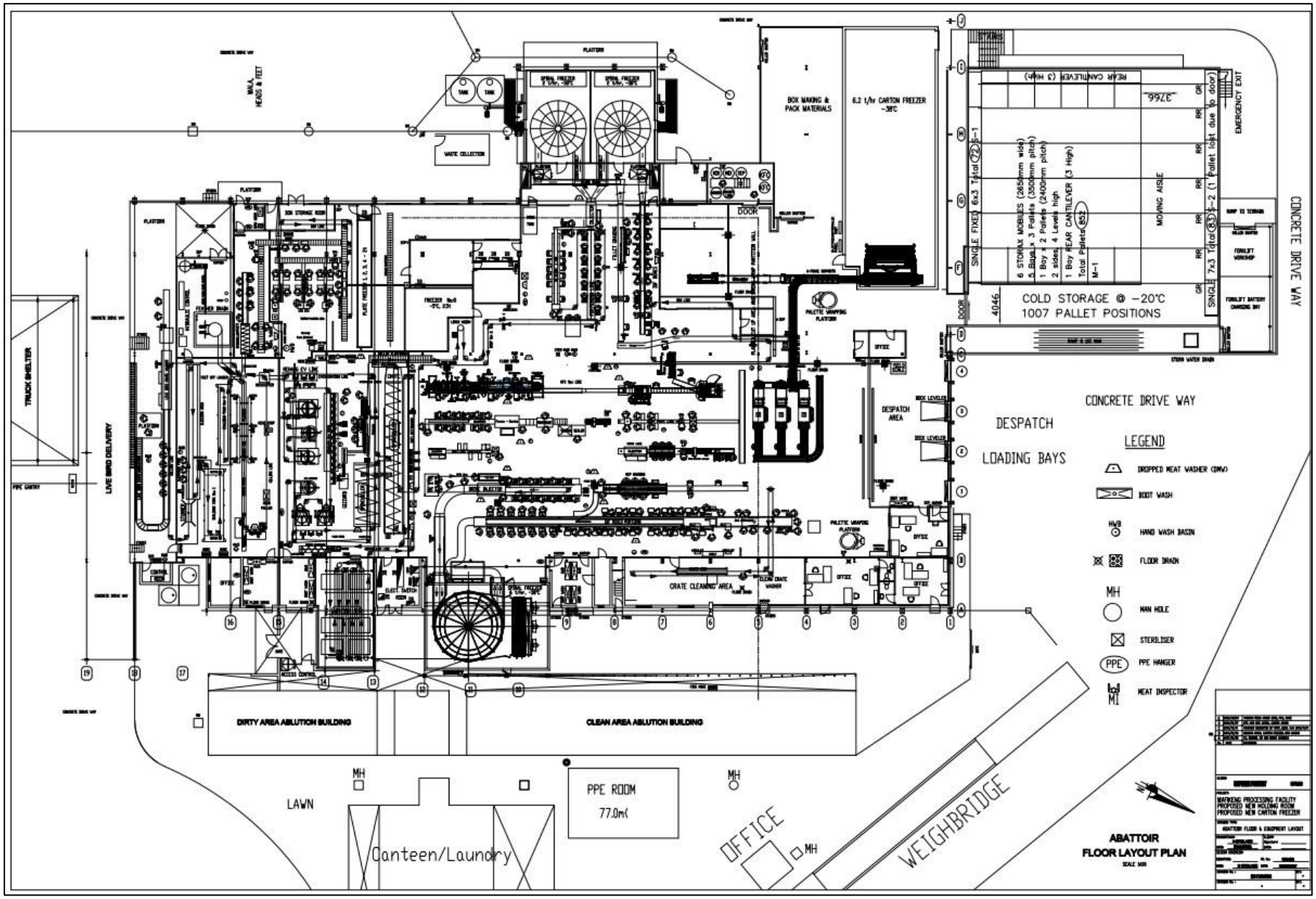

Figure 4: Existing Plant Layout Plan

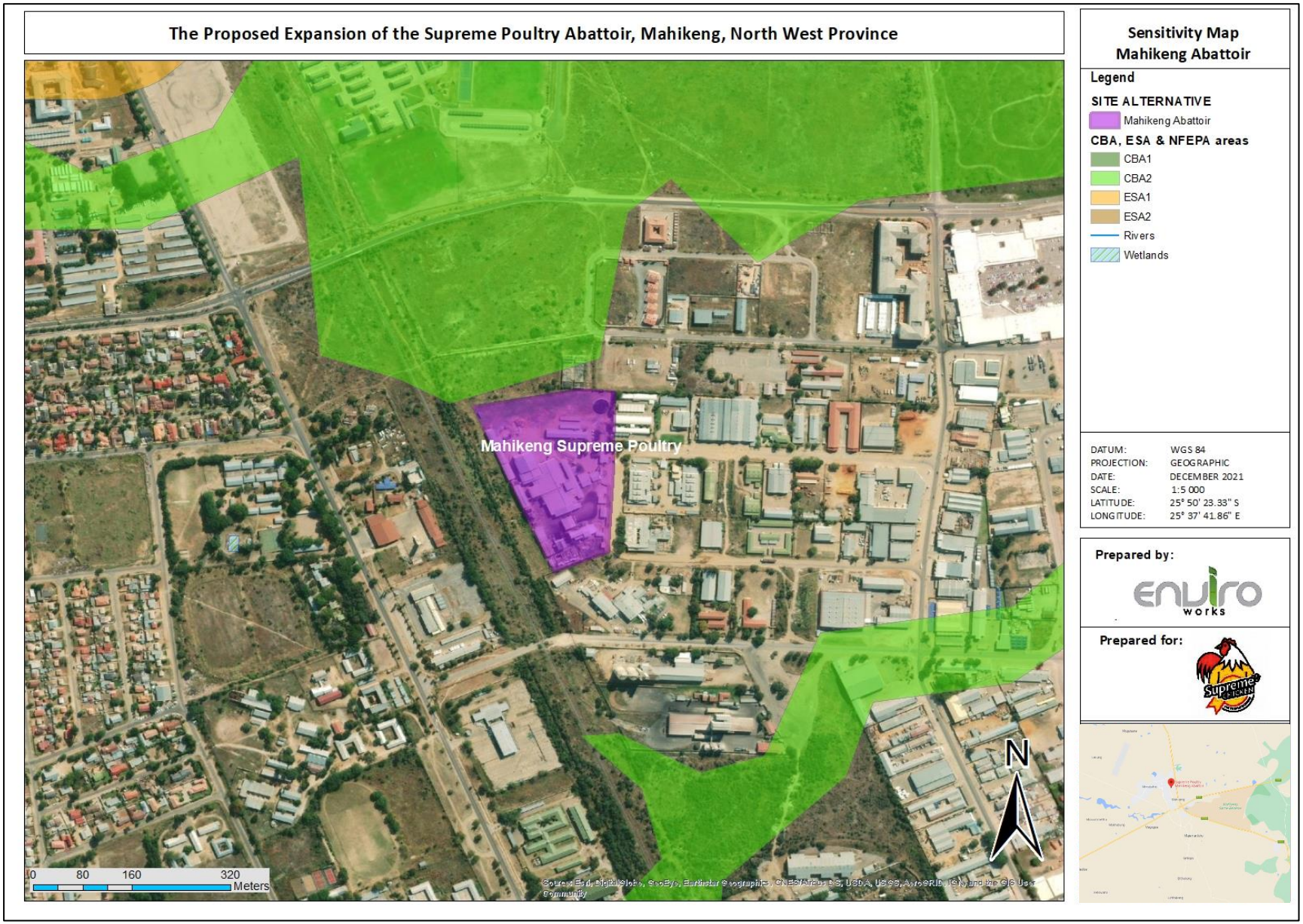

Figure 5: Sensitivity Map at a 1:5 000 scale of the Processing Facility

3 ENVIRONMENTAL ASSESSMENT PRACTITIONER

This Environmental Management Programme Report (EMPr) was prepared by Jan-Louis Jordaan from Enviroworks, the Environmental Assessment Practitioner (EAP) who is undertaking this EIA process. The sections below provide the details of the EAP and explain the EAP's expertise to prepare this EMPr.

3.1 Details of the EAP

Business name of EAP:	Enviroworks (PTY) Ltd.
Physical address:	5 Walter Sisulu Road, Park West, Bloemfontein, 9301
Postal address:	Suite 116, Private Bag X01
Postal code:	9324
Telephone:	051 436 0793
E-mail:	jl.jordaan@enviroworks.co.za
Fax:	086 601 7507

3.2 Expertise of the EAP

Name of EAP	**Education qualifications**	**Professional affiliations**	**Experience at environmental assessments (yrs)**
Jan-Louis Jordaan	BSc. Conservation Ecology and Entomology (SU)	IAIA 6728	1 year
Name of EAP (Reviewer)	**Education qualifications**	**Professional affiliations**	**Experience at environmental assessments (yrs)**
Elana Mostert	MSc. Botany (SU)	IAIA 5631; EAPASA 2019/1311	5 years

3.3 Curriculum Vitae of the EAP

Suite 116, Private Bag X01, Brandhof, 9324

5 Walter Sisulu Road, Universitas, Bloemfontein, 9301

Cell: 079 506 2356 I Tel: 051 436 0793 I Fax: 086 601 7507

jl.jordaan@enviroworks.co.za I www.enviroworks.co.za

Jan-Louis Jordaan

Highest Qualification	**B.Sc. Conservation Ecology and Entomology (SU)**
IAIA registration No.	6728

EDUCATION

Tertiary

- Baccalaureus Scientiae (B.Sc.) in Conservation Ecology and Entomology: University of Stellenbosch (2015-2019)
- Short course in Environmental Law: North-West University (2021)

Secondary

- Hoërskool Sentraal, Bloemfontein (2010-2014)

WORK EXPERIENCE

March 2021 – Present: Environmental- and Ecological Specialist at Enviroworks

KEY PROJECT EXPERIENCE

SCREENING PROCESS & LEGAL QUERIES

- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Erf 5639, Midrand, Gauteng Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Portion 2 of Erf 5639, Polokwane, Limpopo Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Portion 1 of Erf 1897, Brits, North West Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Portion 369 (a portion of Portion 193) on karan 297, Hartbeesfontein, North West Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Portion 12 of Parcel 1457, Klerksdorp, North West Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Erf 594, Swartruggens, North West Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Erf 5479, Vryburg, North West Province.
- Proposed development of a telecommunication base station and associated infrastructure for Highwave Consultants on Restant Erf 5859, Vryburg, North West Province.

- Screening Assessment and Legal Query for the proposed development of the Cluster School Bulk Sewer Line in Thaba Nchu for Nako Iliso Consulting and the Free State Department of Education, Free State Province

ENVIRONMENTAL CONTROL OFFICER

- The upgrading of gravel roads to surface standards inclusive of associated Stormwater intervention in Lawley Ext. 3 & 4 – Phase 4A, Lawley, Gauteng Province, South Africa.
- The proposed 132KV power line between Sorata Switching Station and Witsieshoek Substation, Free State Province, South Africa.
- Conrad Drive Bridge widening and intersection improvements western part in Region B, Blairgowrie, Gauteng Province, South Africa.
- Monthly Environmental Compliance Audit for the operation of Mission Point Sand Mine near Sasolburg, Free State Province.
- Bi-Weekly Environmental Monitoring for the Development of the Matla-Kriel Filter Line, Matla and Kriel, Mpumalanga Province.
- Environmental Control Officer for the installation of the Incinerator for Quantum Foods on Portion 147, 148 and 149 of the farm Hartebeesfontein, No. 472, Gauteng Province.
- Monthly Compliance Audits for the Construction works at the Vista Park Ext 3 Township Development, Bloemfontein, Free State Province.

ANNUAL AUDIT

- External Waste Management Compliance Audit of the Liatros Recycling Facility, Germiston, Gauteng Province.

BASIC ASSESSMENT EXPERIENCE

- Proposed development of a thirty-meter telecommunications Mast on Portion 24 of Olyven Boomen Farm Number 83, near Wellington, Western Cape Province.
- Section 24G for the Proposed composting facility on portion 2 of the farm Poortjie No. 389, Heidelberg, Gauteng Province *(in progress)*.

EXPERIENCE IN PERMITS AND LICENCING

- Water Use License Application for the Registration of a Borehole at LMC Farms in Molote City
- Water Use License Application for the Construction of Noenieput Water Supply Pipeline

OTHER EXPERIENCE

- GIS mapping and assistance for various projects, including the drawing of locality and sensitivity maps.
- Assistance in the identification of Botanical species for the proposed development of Chicken Houses on Quantum Foods, Bulhoek, near Swartruggens, North West Province.
- Assistance in the identification of Avian species and Nesting sites for Mr. Albert Froneman for the proposed development of a Mixed-Use Development in the Kruger National Park, near Phalaborwa Gate, Limpopo Province.
- Public Participation Processes and assistance to several projects.

3.4 Curriculum Vitae of the Review EAP

Elana Mostert CV – Environmental- & Ecological Specialist | Operations- & Project Manager

Name:	Elana
Surname:	Mostert
Highest qualification:	MSc Botany (SU)
EAPASA registered:	No. 2019/1311
IAIAsa registered:	No. 5631
South African Association of Botanists	No. 649
Postal address:	Enviroworks PO Box 1064 Private Bag x2 Century City 7446
Physical address:	Unit 81, Millennium Business Park 19 Edison Way Century City 7441
Cell phone:	076 838 3058
E-mail:	elana@enviroworks.co.za

RELEVANT QUALIFICATIONS

- MSc Botany (SU): Specialising in Invasion Biology & Fynbos Restoration
- BSc Hons Plant Sciences- Ecology (UP)
- BSc Environmental Sciences (UP)
- Section 21 (c) and (i) Training: Roodeplaat (November 2017)
- SASS5 Aquatic Biomonitoring Training (November 2018)

WORK EXPERIENCE

- March 2016 - May 2017: Field assistant, Plant Ecologist at Department of Environmental Affairs (Oceans & Coasts)
- June 2017 - current: Environmental Consultant & Ecological Specialist at Enviroworks
- January 2019 – June 2021: Office Manager for Enviroworks, Cape Town
- July 2021 – current: Operations- & Project Manager for Enviroworks (Cape Town, Bloemfontein & George)

Published popular Science article:

- Mostert, E., Gaertner, M., Hall, S., Mukundamago, M., Holmes, P. 2015. *Solving the puzzle of restoring the missing fynbos*. Quest, Volume 11, Number 3.

Publication in peer-reviews journals:

- Mostert, E., *et al*., Impacts of invasive alien trees on threatened lowland vegetation types in the Cape Floristic Region, South Africa, South African Journal of Botany 108 (2017) 209–222. **DOI** https://doi.org/10.1016/j.sajb.2016.10.014

- Mostert E., et al, A multi-criterion approach for prioritizing areas in urban ecosystems for active restoration following invasive plant control, Environmental Management, 1-20, **DOI** 10.1007/s00267-018-1103-9
- Snyman, A., Mostert, E. and Ludynia, K., 2021. Sex determination of Kelp Gull *Larus dominicanus vetula* using head and bill measurements. *Ostrich*, *92*(2), pp.147-150. **DOI** https://doi.org/10.2989/00306525.2021.1887951

SCREENING PROCESS AND LEGAL QUERIES:

- Environmental Screening Process for the proposed Gromis-Nama-Aggeneis 400kV IPP integration power line, Northern Cape Province, Eskom SOC Ltd.
- Environmental screening and EIA applicability checklist for the proposed development of a telecommunication base station on erf 9284, Somerset West, Western Cape Province, CTC Operations (Pty) Ltd.
- Environmental screening for the periodic maintenance of TR1/2, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834, near Uniondale, Western Cape Province, Western Cape Department of Transport and Public Works.
- Environmental screening for the R60 selected road crossing and road widening between Worcester and Ashton, Western Cape Province, Western Cape Department of Transport and Public Works.
- Environment Screening Process and EIA applicability checklist for the proposed rehabilitation of Tafelberg Road, extending from the intersection at Tafelberg Road and Kloofnek Road (SV0) to the Lower Cableway Station (SV1351), City of Cape Town, Western Cape Province, City of Cape Town Metropolitan Municipality.
- Legal Query for the Proposed Improvement of a Section of the National Road (N11) Which Has Been Undermined Near Newcastle in the Kwazulu-Natal Province, BVi Consulting Engineers (Pty) Ltd on Behalf of South African National Roads Agency SOC Limited (SANRAL).

WATER USE LICENCE APPLICATIONS

- General Authorization for the rehabilitation of Divisional Road 1688 from Calitzdorp (KM 1.00) to the Calitzdorp Spa Turnoff (KM 15.64), Western Cape Province, BVi Consulting Engineers.
- General Authorization for the the periodic maintenance of TR1/2, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834, near Uniondale, Western Cape Province, Western Cape Department of Transport and Public Works.
- General Authorization for the proposed construction of a cellular telecommunications base station and associated infrastructure in Roodekrans, Gauteng, Coast to Coast Towers (Pty) Ltd.
- General Authorization for the remediation of a section of the Bath River and associated infrastructure – Site 1, Caledon, Western Cape Province, Theewaterskloof Local Municipality.

SECTION 24G RECTIFICATION APPLICATION

- Section 24G Application for the unlawful clearing of indigenous vegetation and construction of chicken lay houses, Molote City, North West Province, Baramakama Poultry (Pty) Ltd.

ENVIRONMENTAL CONTROL OFFICER/AUDITING

- Environmental Control Officer for the rehabilitation of Divisional Road 1688 from Calitzdorp (KM 1.00) to the Calitzdorp Spa Turnoff (KM 15.64), Western Cape Province, BVi Consulting Engineers.
- Environmental Control Officer for the periodic maintenance of TR1/2, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834, near Uniondale, Western Cape Province, Western Cape Department of Transport and Public Works.
- External environmental compliance auditing for the upgrade of the Caledon-Myddleton bulk sewer main (Phase 3), Caledon, Western Cape Province, Theewaterskloof Local Municipality.
- External environmental compliance auditing for the upgrade of the Caledon-Myddleton bulk sewer main (Phase 4), Caledon, Western Cape Province, Theewaterskloof Local Municipality.
- Environmental Authorisation Compliance Checklist for the Development of a Telecommunication Mast and Associated Infrastructure on Portion 21 of Farm Bakkely's Plaat No. 156, Buffelsjags River, Swellendam, Western Cape, Coast to Coast Towers (Pty) Ltd.
- Environmental Authorisation Compliance Checklist for the Development of a Cellular Telecommunications Base Station and Associated Infrastructure on Portion 76 of Farm No. 106, Robertson, Western Cape, Coast to Coast Towers (Pty) Ltd.
- External Environmental Compliance Audit for the Atmospheric Emission Licence for the PetrosSA Bloemfontein Depot, Free State, PetroSA.

ENVIRONMENTAL REHABILITATION PLAN

- Environmental rehabilitation plan for all the areas affected by the continuous spillage of raw sewage in and around Upington, Northern Cape Province, Dawid Kruiper Local Municipality.

BASIC ASSESSMENT EXPERIENCE

- The proposed construction of a cellular telecommunications base station and associated infrastructure on Portion 76 of Farm No. 106, Robertson, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- The proposed construction of a cellular telecommunications base station and associated infrastructure on Portion 1 of Farm No. 178, Fisantekraal, City of Cape Town, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- The proposed development of a telecommunication base station and associated infrastructure on Portion 8 of the Farm Delta no. 1003, Groot Drakenstein, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- Proposed development of a free-standing cellular communication base station and associated infrastructure on Portion 7 of the Farm Haane Kuil no. 335, Beaufort West, Western Cape Province, Warren Petterson Planning (Pty) Ltd.
- The proposed development of a filling station on Portion 538 of the Farm Zevenfontein no. 407, Broadacres, Johannesburg, Gauteng Province, TTP Consult (Pty) Ltd.

INTEGRATED ENVIRONMENTAL AUTHORISATIONS

- Amendment of the Environmental Integrated Authorisation for the Continuous Ash Disposal at Matimba Power Station, Lephalale, Limpopo Province, Eskom Holdings SOC Ltd.

ENVIRONMENTAL MANAGEMENT PLANS

- The proposed construction of a cellular telecommunications base station and associated infrastructure on Portion 76 of Farm No. 106, Robertson, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- The proposed construction of a cellular telecommunications base station and associated infrastructure on Portion 1 of Farm No. 178, Fisantekraal, City of Cape Town, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- The proposed development of a telecommunication base station and associated infrastructure on Portion 8 of the Farm Delta no. 1003, Groot Drakenstein, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- Proposed development of a free-standing cellular communication base station and associated infrastructure on Portion 7 of the Farm Haane Kuil no. 335, Beaufort West, Western Cape Province, Warren Petterson Planning (Pty) Ltd.
- The proposed development of a filling station on Portion 538 of the Farm Zevenfontein no. 407, Broadacres, Johannesburg, Gauteng Province, TTP Consult (Pty) Ltd.
- Section 24G Application for the unlawful clearing of indigenous vegetation and construction of chicken lay houses, Molote City, North West Province, Baramakama Poultry (Pty) Ltd.
- Construction and Maintenance Environmental Management Plan for the proposed rehabilitation of Tafelberg Road, extending from the intersection at Tafelberg Road and Kloofnek Road (SV0) to the Lower Cableway Station (SV1351), City of Cape Town, Western Cape Province, City of Cape Town Metropolitan Municipality.

OTHER ENVIRONMENTAL CONSULTING WORK

- Environmental Statement for Erf 3301 and 8622 Hout Bay for the Conversion of Current Development Rights – Retirement Complex, Hout Bay, City of Cape Town, Western Cape Province, Riverside Guesthouse**.**
- Recommendations on the Environmental Authorisation Conditions Resulting from the Ecological Impact Assessment Done for the Residential Development on the Farm Lilyvale 30/2313, Bloemfontein, Mangaung Metropolitan Municipality, Free State Province, Free State Department of Economics, Small Business Development, Tourism and Environmental Affairs (DESTEA).
- Environmental Consultant for the Provision of Professional Services: Planning, Preliminary Design, Concept Design, Detail Design, Tender Documentation and Construction Supervision for a City-Wide Public Transport Infrastructure Programme - Maitland Public Transport Interchange (PTI), City of Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape (Pty) Ltd on Behalf of The City of Cape Town Metropolitan Municipality.
- Environmental Consultant for the Provision of Professional Services: Planning, Preliminary Design, Concept Design, Detail Design, Tender Documentation and Construction Supervision for a City-Wide Public Transport Infrastructure Programme - Durbanville Public Transport Interchange (PTI), City of Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape (Pty) Ltd on Behalf of The City of Cape Town Metropolitan Municipality.
- Environmental Consultant for the Provision of Professional Services: Planning, Preliminary Design, Concept Design, Detail Design, Tender Documentation and Construction Supervision for a City-Wide Public Transport Infrastructure Programme - 83 Permanent MyCiTi Bus Stops, City of Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape (Pty) Ltd on Behalf of The City of Cape Town Metropolitan Municipality.
- External Investigation Report for the Composting Facility of WD Hall Transport (Pty) Ltd Outside Heidelberg, Lesedi Local Municipality, Gauteng Province, Nigel Goldfields Lodge cc T/A De Pecan Valley.
- Confirmation of Water Use Registrations for the Portion Uitkyk 5 of the Farm Bosch Rivier no. 119, near Montague, Western Cape Provinve, Jap van der Merwe.

APPEAL PROCESSES

- Appeal process for the proposed development of a telecommunication base station and associated infrastructure on Portion 8 of the Farm Delta no. 1003, Groot Drakenstein, Western Cape Province, Coast to Coast Towers (Pty) Ltd.
- Appeal process for the Section 24G Application for the unlawful clearing of indigenous vegetation and construction of chicken lay houses, Molote City, North West Province, Baramakama Poultry (Pty) Ltd.

FRESHWATER ECOLOGICAL ASSESSMENTS

- Freshwater Impact Assessment for the Environmental Screening Process for the proposed Gromis-Nama-Aggeneis 400kV IPP integration power line, Northern Cape Province, Eskom SOC Ltd.
- Wetland delineation and DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of 100 erven on Erf 210 in Sutherland, Karoo Hoogland Local Municipality, Northern Cape, COGHSTA.
- Wetland delineation and DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed Zachtevlei Dam and Bulk Conveyance Infrastructure, Lady Grey, Eastern Cape, Indwe Environmental Consulting for Joe Gqabi District Municipality.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of Erf 3976 for a mixed-use development in Hartswater, Phokwane Municipality, Northern Cape, Makespace Architects.
- DWS Section 21 (c) & (i) Water Use Risk matrix for the proposed construction of a cellular telecommunications base station and associated infrastructure in Roodekrans, Gauteng, Coast to Coast Towers (Pty) Ltd.
- Wetland delineation for the proposed development of the Sarah Baartman Agricultural Hub, Eastern Cape, FemPlan.
- Wetland delineation for the proposed development of the Alfred Nzo Agricultural Hub, Eastern Cape, FemPlan.
- Wetland delineation for the proposed development of the OR Tambo Agricultural Hub, Eastern Cape, FemPlan.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed expansion of a granite mine in Biesjesfontein, Springbok, Northern Cape, Greenmined.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of new sports grounds at Waterstone College, Olifantsvlei, Gauteng, CURRO.
- Wetland delineation and DWS Section 21 (c) & (i) Water Use Risk Matrix for the 24G Application for the unlawful clearing of indigenous vegetation and construction of chicken lay houses, Molote City, North West Province, Baramakama Poultry (Pty) Ltd.
- Freshwater specialist study for the extension of a canal by 10 metres at km0.1 along Minor Road 6924, Western Cape Province, Garden Route District Municipality.
- Wetland delineation and DWS Section 21 (c) & (i) Water Use Risk Matrix for the 24G Application for the unlawful construction of a poultry farm, Belgie, Thaba 'Nchu, Free State, Country Bird Holdings.
- Freshwater Study and DWS Section 21 (c) & (i) Water Use Risk Matrix for the periodic maintenance of TR1/2, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834, near Uniondale, Western Cape Province, Western Cape Department of Transport and Public Works.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the rehabilitation of Divisional Road 1688 from Calitzdorp (KM 1.00) to the Calitzdorp Spa Turnoff (KM 15.64), Western Cape Province, Western Cape Province, Western Cape Department of Transport and Public Works.
- Freshwater Impact Assessment and DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed construction of a water pipeline between Noenieput and Swartkop Dam, Northern Cape Province, Kalahari-East Water Users Association.
- Water Use License Requirements (Environmental Operation, Emergency & Management Plan; Monitoring Programme; Rehabilitation Plan) for the upgrade of the Caledon Bulk Sewerage pipeline along the Bath River between Caledon and Myddleton, Western Cape Province, Theewaterskloof Local Municipality.
- Freshwater Risk Assessment Statement for the Proposed Upgrades to Avondale Heights Block of Flats, 1 Avondale Terrace, Cape Town, Western Cape Province, UF Architects.
- Freshwater Assessment and DWS Section 21 (C) & (I) Risk Matrix for the Proposed Development of an Approximate Six Point Three Kilometre (6.3km) Long Pipeline Along Macassar Road, Between the Zandvliet and Macassar WWTW, Cape Town, Western Cape Province, BVi Consulting Engineers Western Cape (Pty) Ltd on Behalf of The City of Cape Town Metropolitan Municipality.
- Aquatic- and Terrestrial Biodiversity Assessment and DWS Section 21 (C) & (I) Risk Matrix for the Proposed Rotondo Dam on Farm 1093 (Rotondo Farm) to Act as a Storage Dam for the Rotondo Walnut Operation in the Rouxville District, Free State Province, Indwe Environmental Consulting in Association with Moira Cloete Environmental Consulting (MCEC).
- PES monitoring procedure of the Orange River for the the Xina Solar One thermal plant (Phase 2) and its associated infrastructure, Northern Cape Province, Abengoa Solar.
- Aquatic Biodiversity Impact Assessment and DWS Section 21 (C) & (I) Risk Matrix for the proposed rezoning of- and the development of fifteen (15) resort units on Portion 12 of the Farm Riet Valley No. 452, Hessequa Local Municipality, Western Cape Province, Silverspot Investsments One CC.

- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed road upgrades to the Stikland Psychiatric Hospital, Bellville, City of Cape Town Metropolitan Municipality, Western Cape Province. BVi Consulting Engineers Western Cape Province (Pty) Ltd on behalf of the Western Cape Department of Transport and Public Works.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed Mining Permit for all forms of limestone, dimension stone and marble on a Portion of Portion 3 of the Farm Welverdiend No. 511, Vanrhynsdorp, Western Cape Province, Greenmined Environmental.
- Aquatic Biodiversity Compliance Statement and DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of a twenty-five-meter (25m) telecommunications mast and associated infrastructure on Portion 3 of Farm No. 452, Almenkerk Wine Estate, Grabouw, Western Cape Province, SBA Towers South Africa (Pty) Ltd.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of a thirty-meter (30m) telecommunications mast on Portion 24 of Olyven Boomen Farm No. 83, Malan Valley, Wellington, Western Cape Province, SBA Towers South Africa (Pty) Ltd.
- DWS Section 21 (c) & (i) Water Use Risk Matrix for the proposed development of a Battery Energy Storage System (BESS) at the Ashton Substation on Erf 2202, Ashton, Western Cape Province, Eskom Holdings SOC Ltd.

EXPERIENCE IN PERMITS AND LICENCING

- Flora removal permit and translocation guidelines for the periodic maintenance of National Route 2 Section 4 between Riviersonderend (km 0.0) and Swellendam (km 56.9), Western Cape Province, SANRAL.
- Flora removal permit for the re-surfacing of the Donkergat Access Road located within the Langebaan 4 Special Forces Regiment Base, Langebaan, Western Cape, Department of Public Works**.**
- Fauna and flora removal permits for the upgrading of intersections and resealing of road sections between Hotazel and Black Rock, Northern Cape, SMEC.
- Flora removal permit for the rehabilitation of Divisional Road 1688 from Calitzdorp (KM 1.00) to the Calitzdorp Spa Turnoff (KM 15.64), Western Cape Province, BVi Consulting Engineers.

ECOLOGICAL IMPACT ASSESSMENT EXPERIENCE

- Botanical Impact Assessment for the Environmental Screening Process for the proposed Gromis-Nama-Aggeneis 400kV IPP integration power line, Northern Cape Province, Eskom SOC Ltd.
- Ecological Impact Assessment for the proposed development of 100 erven on Erf 210 in Sutherland, Karoo Hoogland Local Municipality, Northern Cape, COGHSTA Northern Cape.
- Ecological Impact Assessment for the periodic maintenance of National Route 2 Section 4 between Riviersonderend (km 0.0) and Swellendam (km 56.9), Western Cape Province, SANRAL.
- Flora identification study for the re-surfacing of the Donkergat Access Road located within the Langebaan 4 Special Forces Regiment Base, Langebaan, Western Cape, Department of Public Works.
- Quarterly monitoring assessment for the rehabilitation efforts on Portion 5 of Farm 830 Doornekraal, Malmesbury, Western Cape.
- Rehabilitation feedback and framework report for the rehabilitation efforts on Portion 5 of Farm 830 Doornekraal, Malmesbury, Western Cape.
- Botanical inspection and recommendations for vegetation rehabilitation at 13 Duikerweg, Melkbosstrand, Western Cape.
- Botanical inspection along R60 selected road crossing and road widening between Worcester and Ashton, Western Cape, BVi Consulting Engineers.
- Ecological Impact Assessment for the proposed development of the Mapungubwe Visitor Interpretation Centres and Overnight Facilities, Limpopo Province, SANParks.
- Ecological Impact Assessment for the proposed upgrade of the existing R27 entrance gate to the West Coast National Park, Western Cape Province, SANParks.
- Ecological Impact Assessment for the proposed development of Erf 3976 for a mixed-use development in Hartswater, Phokwane Municipality, Northern Cape, Makespace Architects.
- Ecological Impact Assessment for the proposed construction of a cellular telecommunications base station and associated infrastructure in Roodekrans, Gauteng, Coast to Coast Towers (Pty) Ltd.
- Ecological Impact Assessment for the proposed construction of six lay houses and two new production (hen) houses at Frans Dam Farm, No. 803 Portion 3 in Brandfort, Free State, Moreson Pluimvee Boerdery (Pty) Ltd.
- Ecological Impact Assessment for the 24G Application for the unlawful clearing of indigenous vegetation and construction of chicken lay houses, Molote City, North West Province, Baramakama Poultry (Pty) Ltd.
- Ecological Impact Assessment for the proposed construction of a composting facility on Farm No. 1136 Terugval Portion 1 in Brandfort, Free State, Moreson Pluimvee Boerdery (Pty) Ltd.

- Ecological Impact Assessment for the 24G Application for the unlawful construction of a poultry farm, Belgie, Thaba 'Nchu, Free State, Country Bird Holdings.
- Ecological Impact Assessment for the the periodic maintenance of TR1/2, TR1/3, TR44/1, TR88/1, MR401, MR402 and DR1834, near Uniondale, Western Cape Province, Western Cape Department of Transport and Public Works.
- Botanical Survey for the proposed 20m monopole mast and base station on Erf 455, Simon's Town, Western Cape Province, Atlas Tower (Pty) Ltd.
- Flora- and Terrestrial Biodiversity Impact Assessment for the proposed construction of a water pipeline between Noenieput and Swartkop Dam, Northern Cape Province, Kalahari-East Water Users Association.
- Ecological close-out report for the Xina Solar One thermal plant (Phase 2) and its associated infrastructure, Northern Cape Province, Abengoa Solar.

ALIEN INVASIVE SPECIES MANAGEMENT EXPERIENCE

- Preparation of a plan to control and eradicate invasive species as contemplated in Section 76 of the Act, National Environmental Management: Biodiversity Act, 2004 (Act No.10 Of 2004) (NEMBA) for Theewaterskloof Local Municipality**.**
- Baseline Biodiversity Database and Alien Management Strategy Recommendations, Drakenstein, Western Cape, Drakenstein Municipality.
- Review and presentation of Lafarge Saldanha Alien Invasive Species Management Plan, Saldanha, Western Cape Province, Lafarge South Africa.
- Alien Invasive Species Training for staff and management, Saldanha, Western Cape Province, Lafarge South Africa.
- The Alien invasive species management plan for the Roads Services of the Garden Route District Municipality, Western Cape Province, Garden Route District Municipality (Review of final plan, project management and fieldwork).

4 PROJECT DESCRIPTION AND LISTED ACTIVITIES COVERED BY THIS EMPR

4.1 Brief Project Description

Phakamile Risk Consultants (Pty) Ltd. appointed Enviroworks, an independent Environmental Assessment Practitioner (EAP), on behalf of Supreme Poultry (Pty) Ltd. (The Applicant), to undertake the required Basic Assessment (BA) process for the proposed expansion of the output of slaughtering and processing poultry from 120 000 units per day to 150 000 units per day and associated recovery, recycling and treatment of chicken waste to feather meal at the Supreme Poultry Mahikeng Chicken Processing Plant, North West Province.

The Processing Plant is an already established facility (prior to at least 1995), with the current slaughtering volumes not exceeding a hundred and twenty thousand (120 000) units per day. The Applicant proposes an expansion of the output to a hundred and fifty thousand (150 000) units per day and associated recovery, recycling and treatment of chicken waste to feather meal. This will lead to an increase in the availability of processed poultry products for the surrounding community and businesses. The Processing Plant is designed in such a manner as to process more units than what it currently processes, therefore no physical construction will occur in order to facilitate this increase of the slaughtering volumes.

The overall site amounts to an area of just under four hectares (4 ha), encompassing a total development footprint of ten thousand three hundred-and forty-five-point three square metres (10 345.3 m^2). The total development footprint of the site includes, but is not limited to, a Tool shed, Workshop, Compressor plant room, Pack material stores, Pallet making shop, Workshop and material store, Meal loading area, Rendering Plant, Live bird receiving area, Processing building, Holding room, Refrigeration plant, Steam generator house, Substation, Change room, Ablution building, Canteen, Refuse area, Security office, PPE room, Weighbridge office, Office building, Factory shop, Carports, Concrete driveways, Parking areas, Water reservoir and surface areas consisting of concrete bed slabs, lawns and gardens, concrete block paving and ground surfaces. The Processing building measures at approximately three thousand nine hundred and eleven square metres (3 911 m^2). The Steam Generator house and Rendering Plant combined equates to six hundred- and thirteen-point six square metres (613.6 m^2).

The standard activities taking place in the processing plant include four (4) phases. The initial phase includes the delivery of the chickens, ante-mortem (before slaughtering) inspection and the lairage (where the birds are kept prior to slaughtering). Should there be Dead-on Arrival birds present during delivery at the receiving bay, then a post-mortem (after death) inspection will be performed. The second phase includes the slaughtering activities, which consist of the stunning and bleeding out of the chickens, debunking, removal of feathers and internal organs. After the organs are removed, they are washed, packaged, weighed and are stored. Hereafter the organs are sold to the intended prospective clients. The blood and feathers are transported to the rendering area and are removed and transported via conveyer belts and pipes in the facility to the Rending Plant, whereas the heads, feet and viscera are packaged and stored in the holding rooms before being sold. The third phase includes the packaging and cooling of the processed units. An inspection is performed on the meat after slaughtering in order to determine whether the produce is compliant according to Health and Safety standards of the facility as well as the Foodstuffs, Cosmetics and Disinfectant Act, 1972 (Act No. 54 of 1972) and Meat Safety Act, 2000 (Act No. 40 of 2000). The cutting or quartering of the carcasses into portions then takes place,

after which the portions are washed at the cut-up wash station. Hereafter the portions are packaged and chilled in large industrial freezers and in “fresh areas”.

Finally, the last phase constitutes the delivery phase, whereby the processed portions are transported to the loading bay area and then transferred to the intended prospective clients. Should the post-mortem inspection identify undesirable or unusable biological material, this material is transported to the Rendering Plant.

An average of one hundred and fifty-two point twenty-nine (152,29) tonnes of Grade A coal is delivered to the Supreme Poultry Mahikeng Processing Plant on a monthly basis. The coal is stored in a bunded storage area, before being loaded into the two steam generators present on site. Coal is burnt in the two steam generators, hereby generating steam which is subsequently transferred to various areas of Production and the Rendering Plant. It should be noted that one steam generator is not always simultaneously operational, with said steam generator being on stand-by and only used when/if necessary. The coal ash produced by the steam generators are then stored in a designated storage area, whereafter it is collected and removed by a brick maker. Approximately thirty-two point zero four cubic metres (32,04 m^3) of ash is produced on a monthly basis.

As mentioned above, the heads, feet, blood, feathers, fats, inedible viscera and Dead-on Arrival birds are received from the processing plant with dedicated pipelines, conveyer belts and “trolleys” at the Rendering Plant. Here, steam obtained from the steam generators is utilised in order to cook the biological material. After the cooking process has been finalised, the material is then dried out, and grounded. The final product is feather meal, which is then packaged and stacked, whereafter it is sold to prospective clients. These clients use the meal as a high protein additive for animal feed.

It is estimated that the facility currently produces one hundred and seventy thousand, nine hundred and thirty kilogrammes (170 930 kg) (170.93 tons) of biological material per month, with Dead-on Arrival birds included within this figure. The upper and lower limits for this aforementioned quantity of biological material per month are two hundred and fifteen point forty four (215,44) tons and hundred and forty three point thirty eight (143,38) tons respectively. The feathers, blood, fat and Dead-on Arrival birds are re-worked into feather meal via the Rendering Plant (sterilization process, thus also referred to as the Sterilizing Plant). This process involves the cooking, drying out and grounding of the material whereby the biological material is transformed into feather meal.

Sieves at the back of the facility collect any solid materials (when the blood, feathers and fat material is removed), preventing these materials from entering the effluent drains. The liquid effluent is discarded within the municipality drains and is tested on a monthly basis. The excess fat and blood are collected from the sieves, and also processed at the Rendering Plant, whereafter it would be sold as feather meal. On average, more than eight thousand kilogrammes (8 000 kg) (8 tons) of animal matter (blood, feathers, fat, Dead-on Arrival birds) are processed by the Sterilizing Plant on a daily basis.

Sanitary and Medical Waste are collected by a registered waste removal contractor (Ecofirst Pest Prevention and Hygiene Services and Averda respectively) and are incinerated off-site. Sewerage from the ablution, canteen, admin, stores and workshop areas; grey water from the showers and washing facilities; and, industrial effluent from processing activities are disposed of via the municipal effluent system. Paper and cardboard, plastic, scrap metal and wood pallets are recycled and reused wherever possible, where excess material is recycled by a third party (Willcor Services). Food waste produced

within the Canteen is collected by a local pig farmer and/or disposed of at the local, registered landfill site by a registered general waste removal contractor.

Additionally, the Applicant proposes to construct a new generator building, with a new bunded diesel tank, south-east of the Rendering Plant. Please note that the new forty-five cubic metre (45 m^3) diesel tank would be encapsulated within a fifty-point six cubic metre (50.6 m^3) bund area. Although diesel may be classified as a dangerous good, due to the dimensions of the storage infrastructure being less than eighty cubic metres (80 m^3), Activity No. 14 of Government Notice 327 dated 07 April 2017, as amended (Listing Notice 1) would not be triggered and therefore an Environmental Impact Assessment in the form of a BA would not be required. Additionally, although the diesel container does have a larger capacity than the thirty cubic metres (30 m^3) prescribed by Activity No. 10 in Government Notice 324 of 07 April 2017, as amended (Listing Notice 3), the proposed location where the proposed activity is to be situated does not fall within the ambit of geographical areas described for the North West Province, and therefore a BA would not be necessary. Additionally, as all the necessary specialist studies and management plans were performed and drafted during the Water Use Licence (WUL) application, including an Integrated Waste Water Management Plan (IWWMP), thus additional specialist studies regarding the installation of the diesel storage tank and subsequent bund area are deemed to be unnecessary.

Please note that Category 10 as per the National Environmental Management: Air Quality Act (NEM:AQA) GN R. 893 in Government Gazette 37054 dated 22 November 2013, as amended, will be applicable for this expansion. However, an Atmospheric Emission Licence (NWPG/SUPREME/AEL10/JULY2020) has been applied for, and was issued on 21 July 2020 by the North West Department of Economic Development, Environment, Conservation and Tourism. A Water Use Application (WU16808) has also been submitted prior to this application on the 4th of December 2021, due to the abstraction of water from boreholes, the storage of water in reservoirs and tanks, processing water and irrigation (Section 21 (a), (b), (e) and (g)).

4.2 Project Phases

This Applicant proposes the expansion of the output of the slaughtering volumes at the Chicken Processing Plant from a hundred and twenty thousand (120 000) units per day to a hundred and fifty thousand (150 000) units per day and the associated recovery, recycling and treatment of chicken waste to feather meal. No construction at the facility will occur whatsoever, as the facility already has the capacity to process the number of units, and therefore no other phases will be present other than the **Operational Phase**. As it is not anticipated that the Processing Plant will be decommissioned in the near future, the proposed impacts thereof were not assessed.

4.3 NEMA Listed Activities Triggered

The NEMA EIA Listed Activities (as per the NEMA EIA Regulations Listing Notices 1, 2 and 3 of 2017, as amended) that will be triggered by the proposed project are listed in the table below.

Table 3: Listed Activities applicable to this application.

Listed Activity	Project Activity / Component

Government Notice Regulation No. 983, Listing Notice 1 of 04 December 2014 (as amended by GN No. 327 of 07 April 2017, GN No. 706 of 13 July 2018 and GN No. 517 of 11 June 2021)	
Activity 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.
Government Notice Regulation No. 921 of 29 November, 2013 (as amended by GN No. 332 of 02 May 2014, GN No. 633 of 24 July 2015, GN No. 1094 of 11 October 2017 and GN No. 1757 of 11 February 2022)	
Category A, (3)	The recycling of general waste at a facility that has an operational area in excess of 500m^2, excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises.
Category A, (5)	The recovery of waste including the refining, utilisation, or co-processing of waste in excess of 10 tons but less than 100 tons of general waste per day or in excess of 500kg but less than 1 ton of hazardous waste per day, excluding recovery that takes place as an integral part of an internal manufacturing process within the premises.
Category A, (6)	The treatment of general waste using any form of treatment at a facility that has the capacity to process in excess of 10 tons but less than 100 tons.

5 EXISTING ENVIRONMENTAL AND IMPACT ASSESSMENT SUMMARY

The sections below summarise the existing environment, and the outcome of the impact assessment that was undertaken for the proposed project.

5.1 The Receiving Environment

The expansion site is situated on Portion 0 of Erf 2688 Mahikeng Extension 27, Portion 0 of Erf 2689 Mahikeng Extension 27 and Portion 0 of Erf 2690 Mahikeng Extension 27, which were all consolidated Into Erf 9907 Mahikeng Extension 27, in Mahikeng North West Province. Regarding the physical address, the Processing Plant is located on 18 James Watt Crescent, in the Industrial area of Mahikeng. The proposed site is situated approximately eight hundred and eighty metres (880m) west of the N18 (R503) Highway, the Erf borders a railway to the west and is situated on the western border of the Mahikeng Industrial Area. The proposed activity entails the expansion of the slaughtering volumes of an existing Chicken Processing Plant and the associated recovery, recycling and treatment of chicken waste to feather meal. The site where the expansion is proposed is ecologically completely transformed, with the only vegetation present inside the premises being landscaped lawns and a few planted trees. The underlying geology can best be described as calcrete, surface limestone and Hardpan by the Council for Geoscience. The depth to groundwater is approximately twenty-three point three seven metres below ground level (23.37 mbgl).

5.2 Public Participation

To support public interest and inform the EIA process, a public consultation process proceeded throughout the assessment. A diverse mix of authorities, stakeholders and interested and affected parties were consulted with during this time, representing the environment, social, economic and political realms of local and regional and national bodies.

Comments received were responded to during various stages of the Public Participation Process (PPP) in the Basic Assessment report (BAR) and were addressed in project reports as relevant. It is considered that throughout the PPP to be conducted by the EAP, all parties had an adequate opportunity to partake in the process and all concerns were addressed to ensure that all parties are in agreement with the proposed development.

5.3 Specialist Investigations

No other specialist desktop studies or impact assessments have been executed for this proposed expansion of the slaughtering volumes and the associated recovery, recycling and treatment of chicken waste to feather meal. Additionally, no compliance statements by specialists have been deemed necessary as the site is ecologically transformed, situated within the Mahikeng Industrial Area and no construction or excavations would occur in order to increase the slaughtering volumes of the Processing Plant. Please refer to the Site verification and Motivation to Exclude Specialist Studies report (**Appendix I1**) regarding the exclusion of specialist studies.

5.4 Environmental Impact Ratings

5.4.1 Potential Impacts during Planning, Design and Construction Phases

No physical construction or excavations will occur as the facility has been designed to accommodate an increase in the slaughter volumes and the associated recovery, recycling and treatment of chicken waste to feather meal, therefore there are no proposed impacts to be assessed for these phases.

5.4.2 Potential Impacts during Operational Phase

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON GEOGRAPHICAL AND PHYSICAL ASPECTS:			
Nature of impact: Handling of general and hazardous waste materials on the development site.	**Activity:** Waste will be generated on site, if not disposed of correctly it will become a nuisance within the area and to the surrounding community. The expected general waste produced during the operational phase would be of a similar amount than what is currently produced.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-
Nature of impact: Traffic impacts associated with the movement of vehicles within the area.	**Activity:** The regular movement of vehicles on James Watt Crescent and within the Industrial area would increase traffic flow and impede vehicle movement. It should however be noted that although more birds would be transported to the facility, these are smaller birds and would subsequently require a similar amount of space to be transported. Thus, the same number of vehicles would be required to transport		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken.

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
	the birds to the facility. Therefore, the impact of traffic in the area after expansion would be similar to the current operational impact.		
Significance rating:	**L**	**L**	-
Cumulative impact:	**L**	**L**	-
Nature of impact: Surface and groundwater contamination from the Processing Facility and the constructed diesel tanks.	**Activity:** Surface and groundwater can become contaminated due to operation of the Processing Plant. Currently, liquid effluent is discarded within the municipality drains and is tested on a monthly basis. Sieves at the back of the facility collect any solid materials (when the blood, feathers and fat material is removed), preventing these materials from entering the effluent drains. The solid materials collected in the sieves are processed at the Sterilizing Plant into feather meal.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken. Currently, liquid effluent is discarded within the municipality drains and is tested on a monthly basis. The Diesel tanks will be placed in a bunded area with an impermeable surface, preventing the hydrocarbons from leaching into the soil.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-
Nature of impact: Increased risk of fires.	**Activity:** Due to the presence of personnel in the area, fires can occur if not managed to the correct standard.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken. The facility is compliant with respect to Occupational Health and Safety regulations regarding Fire Management as per the Fire Risk Survey conducted by A & J Fire Services. Hot, cold work and confined space permit systems are implemented with lock-out-out procedure documents in place. Smoking areas are situated more than fifteen metres (15 m) away from any buildings.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON BIOLOGICAL ASPECTS:			
Nature of impact: Pesticides to control pests such as flies and rodents.	**Activity:** The Processing Plant will use pesticides (e.g., organic compounds and organo-metallic compounds) to control flies and rodents to prevent diseases (flies are carriers of diseases such as *Salmonella, Eschericha ecoli* as well as *Streptococcus* and *Staphylococcus*). These pesticides can contaminate the soil, water, turf, vegetation and native biota if not managed correctly.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken. It should be noted that an increase in pesticides would not occur. Although more birds will be slaughtered should the slaughtering capacity be increased, a similar amount of biological material would be processed.

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
			A Pest Control Program is currently implemented on site and an external Pest Control Company is responsible for the management of pests on site.
Significance rating:	**MH**	**L**	-
Cumulative impact:	**L**	**L**	-
Nature of impact: Pathogens present due to carcasses of the chickens.	**Activity:** The carcasses of the chickens can be a source of odours, flies and diseases if not managed correctly. Currently, the facility is fully compliant with respect to Occupation Health and Safety Legislation and the Health Act regarding the general hygiene requirements for food premises and the transportation of food. A Standard Operating Procedure (SOP) is implemented at the facility which deals with the issue regarding odours and how best to prevent said odours from emanating at the facility.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken. Currently, the facility is fully compliant with respect to Occupation Health and Safety Legislation and the Health Act regarding the general hygiene requirements for food premises and the transportation of food. An odour management plan is in place as is required for the AEL.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS:			
Nature of impact: Operation Activities may have a positive impact on the local and regional socio-economic conditions.	**Activity:** During the operational phase of the proposed expansion, it will create employment opportunities for individuals from the surrounding community. It is estimated that 17 employment opportunities would be created.		It is not expected that any additional employment opportunities will be created should the No-Go Alternative take precedence.
Significance rating:	**M (+)**	-	L (-)
Cumulative impact:	-	-	-
Nature of impact: Occupational Health and Safety.	**Activity:** During the operational phase, accidents, occupational diseases, ill health and damage to property can occur if pre-cautionary measures are not taken.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken. Currently, the facility is fully compliant with respect to Occupation Health and Safety Legislation.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-
Nature of impact: Operation Activities will have a positive impact on local and regional food supply.	**Activity:** During the operational phase of the proposed expansion, more birds will be slaughtered and therefore an increase in the local and regional food supply. Food security in the area would therefore be improved.		Should the No-Go Alternative take precedence, there would not be an increase in the slaughtering volumes and thus food supply in the area would be infringed upon.
Significance rating:	**M (+)**	-	L (-)
Cumulative impact:	-	-	-

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON NOISE:			
Nature of impact: Noise nuisance generated by site operations.	**Activity:** Noise nuisance that may be created by the operation and maintenance work of the Steam generators and Rendering Plant, trucks and chickens (the facility is situated within the industrial area of Mahikeng). Please note that Occupational Noise surveys are conducted every second year. It is therefore not expected that more noise will be generated should the expansion occur.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL ATMOSPHERIC IMPACT:			
Nature of impact: Emissions and odour from the Processing Plant	**Activity:** Emissions and odours from the Processing Plant could add to atmospheric pollution. Regarding emissions, an approved SOP (OHSaES 7.8.18P) is implemented on site.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-

Operational Phase	Expansion Alternative 1		No-Go Alternative
	Before Mitigation	After Mitigation	
POTENTIAL IMPACTS ON THE CHICKENS:			
Nature of impact: Humane handling practices.	**Activity:** Bruises, mortalities, transport and stress associated with the handling of the birds. It must however be noted that a food safety management system is currently implemented with regards to Animal Welfare and that humane handling practices are in place at the facility.		Current operational phase impacts are associated with the no-go alternative; thus, no assessment has been undertaken.
Significance rating:	**M**	**L**	-
Cumulative impact:	**L**	**L**	-

6 RECOMMENDATIONS OF THE EAP

Based on the outcome of the BAR and the Impact assessment, as attached in Appendix F, the EAP has no objections to the proposed project and is of the opinion that an Environmental Authorisation may be provided to the applicant. The following recommendations have been made by the EAP:

1. Currently, 95% of staff at the facility are locally based employees. Furthermore, with the new employment opportunities created, members from the local community must be employed during the operational phase wherever possible; and,
2. The Environmental Management Programme (EMPr) Report should form part of the conditions of approval of this Application.

The EIA process has assessed impacts associated with the proposed expansion and determined, based on the outcomes of a multitude of contributing information, that the proposed expansion would not result in any unacceptable impact or fatal flaws and as such may be authorised.

7 PERSONS RESPONSIBLE FOR IMPLEMENTING THIS EMPR

The "Responsibility" columns in the impact and mitigation tables provided below indicate which team member(s) are responsible for implementation of the identified mitigation measures; these team members include the following:

- Environmental Auditor;
- Applicant / Developer;
- Operations Manager; and the
- Designated Environmental Officer.

The sections below list further supplementary measures, which must also be implemented by the relevant team members.

During the **operational phase** the **Applicant/Developer** or **Operations Manager**, will be responsible to prevent negative environmental impacts, and as such will be responsible to:

- Set aside a budget for maintenance;
- Maintain all facilities and infrastructure in good working order to effectively fulfil its intended purpose and to prevent negative environmental impacts;
- Not construct any additional buildings, infrastructure, etc. contrary to the Environmental Authorisation, without performing an environmental impact assessment where listed activities of the 2014 NEMA EIA Regulations, as amended are triggered; and,

- To immediately remedy any aspects that contribute to negative environmental impacts.

7.1 On-site Communication

The following sections describe the site communication measures that will need to be implemented.

7.1.1 Site Instruction Entries

The Site Instruction book must be used for the recording of general site instructions as they relate to the works on site. It must additionally be used for the issuing of **stop work orders** for the purposes of immediately halting any particular activities of a contractor or process in lieu of the environmental risk that they may pose.

7.1.2 Method Statements

Method statements from the Applicant / Operations Manager will be required for specific sensitive actions on request by the authorities, the EAP or an Environmental Auditor.

A method statement forms the baseline information on which work in sensitive environments takes place and is a "live document" allowing for modifications to be negotiated between the Applicant / Operations Manager and Environmental Auditor / Engineer, as circumstances unfold.

A method statement describes the scope of the intended work, step-by-step, in order for an Environmental Auditor and Engineer to understand the Applicant's intentions. This will enable them to assist in devising any mitigation measures, which would minimise environmental impacts during these tasks. For each instance wherein it is requested that the Applicant submit a method statement to the satisfaction of the Environmental Auditor, the format must clearly indicate the following:

- **What –** a brief description of the work to be undertaken;
- **How –** a detailed description of the process of work, methods and materials;
- **Where –** a description/sketch map of the locality of work (if applicable); and
- **When –** the sequencing of actions with due commencement dates and completion date estimates.

All method statements will form part of the EMPr documentation and are subject to all terms and conditions contained within the EMPr main document.

The Applicant must submit the method statement to the Environmental Auditor before any activity is due to start. Work may not commence until the method statement has been approved by the Environmental Auditor.

7.1.3 Record Keeping

All records related to the implementation of this EMPr (e.g. site instruction book and method statements) must be kept together in an office where they are safe and can be retrieved easily. These records must be kept for two years and must at any time be available for scrutiny by any relevant authorities.

7.2 Monitoring

Several monitoring actions are proposed which would be undertaken by various project role players. For detail on these actions, "Responsible Person/Party", and "Monitoring Frequency" associated with the identified mitigation measures, refers to the "Monitoring" column in the impact assessment below (Chapter 9).

7.3 Performance Assessment and Reporting on EMPr Compliance

A suitably qualified Environmental Auditor must be appointed by the Applicant/Developer to oversee the implementation of the operational phase mitigation measures described in this EMPr, as well as the conditions of authorisation as described in the Environmental Authorisation.

The Environmental Auditor may not be someone appointed by a contractor, engineer or other party involved with this project, other than the Applicant / Developer.

The following applies, amongst others, to the Environmental Auditor's role:

- The Environmental Auditor must report to the Applicant/Developer only;
- Once the proposed expansion occurs, an environmental audit must be undertaken by the Environmental Auditor, before commencement of the operational phase, in order to determine compliance with the EMPr and the Environmental Authorisation. The audit report must be submitted to the Competent Authority; and,
- The Environmental Auditor must undertake one **annual** site visit during the **Operational Phase** of the project.

The Environmental Auditor can recommend the stopping of works if in his/her opinion there is a serious threat to, or impact on the environment, caused directly from the operations. This authority is to be limited to emergency situations where consultation with the Applicant or Operations Manager is not immediately available. In all such work stoppage situations the Environmental Auditor is to inform the Applicant and Operations Manager of the reasons for the stoppage as soon as possible.

Upon failure by the Applicant or Operations Manager or his employee(s) to show adequate consideration to the environmental aspects of this contract, the Environmental Auditor may recommend to the Operations Manager to have a representative or any employee(s) removed from the site or work suspended until the matter is remedied.

7.3.1 Photographs

It is recommended that photographs are taken of the site prior to, during and immediately after expansion as a visual reference. These photographs must be stored with other records related to this EMPr. If captured in digital format, hard copies, in colour, must be kept with all other records relevant to the implementation of this EMPr.

8 ENVIRONMENTAL AWARENESS PLAN

8.1 Environmental Awareness and Risk Training

All employees and sub-contractor team members involved in work on site are to be briefed on their obligations towards environmental controls and methodologies in terms of this EMPr, prior to work commencing. The education/awareness programme must be aimed at all levels of management within the team. See "basic rules of conduct" below.

8.1.1 Basic Rules of Conduct

The following list represents the basic *Do's* and *Don'ts* towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks. These are not exhaustive and serve as a quick reference aid.

NOTE: ALL new site personnel must attend an environmental awareness/induction presentation. Please inform your foreman or manager if you have not attended such a presentation or contact the EAP/Environmental Auditor.

DO:

- Clear your work areas of litter at the end of each day – use the waste bins provided and prevent litter from being blown away by wind.
- Report all fuel or oil spills immediately and stop the spill from continuing.
- Dispose of cigarettes and matches carefully, so to prevent veld fires (arson and littering is an offence).
- Confine work and storage of equipment to within the immediate work area.
- Use all safety equipment and comply with all safety procedures.
- Ensure a working fire extinguisher is immediately at hand if any "HOT WORK" is undertaken e.g. welding, grinding, gas cutting etc.
- Prevent excessive dust and noise.

DO NOT:

- Damage any vegetation outside of the development footprint.
- Do not litter - report dirty or full facilities, i.e. full dustbins and dirty or blocked toilets.
- Do not make any fires.
- Do not enter any fenced off or demarcated areas.
- Do not allow waste, litter, oils or foreign materials into any storm water channels or drains or watercourses.
- Do not litter or leave food lying around.

9 IMPACTS AND MITIGATION MEASURES

A number of potential environmental impacts that may arise during the Operational Phase have been identified. These are outlined in the following table below, and guidelines and mitigation measures are provided. The Applicant and Operations Manager must familiarise himself/herself with the requirements of the EMPr, keeping in mind that other site-specific requirements as outlined in the Environmental Authorisation must also be complied with.

9.1 Construction Phase Environmental Management Programme

The expansion of the facility does not involve any construction or excavations and therefore the proposed impacts for the Planning/Construction Phase were not assessed.

9.2 Operational Phase Environmental Management Programme

The intention of providing an EMPr for the operational phase is to provide guidelines for management of facilities and infrastructure to safeguard the environment against negative environmental impacts.

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		**RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)**	**MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY**	**COMPLIANT? (for use by Environmental auditor)**
1. **ACTIVITY:** OPERATIONAL PHASE IMPACTS				
1.0	**Aspects:** Legislative compliance. **Impact:** Non-compliance with South African environmental legislation. **Objective:** Ensure compliance with all triggered environmental legislation. **Target:** Commence site establishment with all permission and approvals received and on hand.	Applicant	**Monitoring Action:** Obtain copies of all permits; Record Keeping **Responsible Person/Party:** The Applicant **Monitoring Frequency:** Once off	
	Mitigation/Management Measures: a. The Applicant is to have the following permits on expansion commencement: • Environmental Authorisation; • Waste Management Licence; • Air Emissions Licence; • Water Use Licence; and, • EMPr.			

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	b. Environmental file should be kept on site and regularly updated, with amongst others, but not limited to: i. Internal and external audit reports ii. Monitoring reports iii. Complaints register iv. Site and operational permits and licences v. Waste register vi. Safe disposal slips vii. Incident register viii. Incident reports ix. Standard Operating Procedures x. Method Statements.			
1.1	**Aspects:** Noise Generation. **Impact:** Noise nuisance from maintenance work. **Objective:** To avoid excessive noise generation from maintenance work. **Mitigation/Management Measures:** a. Machinery must be in sound mechanical condition and equipped with the necessary silencers; b. Workers on site must adhere to the prescribed working hours (7am – 6pm); c. Ensure that staff conduct themselves in an acceptable manner while on site, both during working hours and after hours; and, d. No loud music will be permitted on site.	Applicant	**Monitoring Action:** Applicant to adhere to business working hours; Complaints register. **Responsible Person/Party:** Applicant	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
1.2	**Aspects:** Increased risk of fires due to the undertaking of maintenance and hot works or personnel and electrical equipment presence on site. **Impact:** Due to maintenance hot works that may need to be performed at the Processing Plant, fires can occur if not managed to the correct standard. Furthermore, due to the operational nature of the facility, and the possible occurrence of electrical faults, fires may occur at the Processing Plant. Finally, the risk associated with fires is increased due to the presence of employees who smoke on site. **Objective:** Ensure no loss of resources due to fires.	Applicant	**Monitoring Action:** Maintenance Contractor or employee Checklist, Annual Environmental Audit Checklist and regular inspections. **Responsible Person/Party:** DEO & Operations Manager **Monitoring Frequency:** Once maintenance activities are conducted.	
	Mitigation/Management Measures: a. Ensure that the area where maintenance hot works are conducted is equipped with adequate firefighting equipment. This includes at least a fire extinguisher of the appropriate type irrespective of the site; b. Maintenance personnel must be adequately trained in the handling of firefighting equipment, and can include but is not limited to: ➢ Regular fire prevention talks and drills; ➢ Posting of regular reminders to staff; c. Do not store any flammable materials anywhere near where the hot works are to be undertaken; d. In the event of a fire, the maintenance Contractor shall immediately employ such plant and personnel as is at his disposal and take all necessary action to prevent the spread of the fire and bring the fire under control; e. Hot works must be restricted to an area approved by the landowner as well as the maintenance contractor; f. Regular inspections of the existing infrastructure must be performed in order to prevent any electrical faults that may occur;			

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	g. No open fires, or "braais", are allowed anywhere on site; h. A designated smoking area must be established more than 6m away from operational areas and any hazardous chemical storage area. Fuel, diesel, oil, or any other flammable substance must be stored 6m away from the smoking area; and, i. Smoking may only occur within a 3m radius from the established designated smoking areas.			
1.3	**Aspects:** Handling of general – and hazardous waste materials on the developed site. **Impact:** Due to increase in slaughtering volumes and more employees, waste will be generated on site. **Objective:** Management and disposal of general- and hazardous waste in an appropriate manner. **Mitigation/Management Measures:** a. Waste must not be stored on site in excess of ninety (90) days; b. All general waste, not recycled or processed at the facility, must be disposed of at a registered landfill site as mentioned in the Basic Assessment Report; c. An adequate number of scavenger proof litter bins are to be placed throughout the site. Two (2) waste bins at least must be present, one (1) for hazardous waste and one (1) for non-hazardous waste at each operational site. Dumping of waste on site is prohibited; d. Waste sorting and separation must form part of the environmental induction and awareness programme, to encourage personnel to collect wastepaper, glass and metal waste separately; e. Keep all work sites including storage areas, offices and workshops neat and tidy; f. Dedicate a demarcated and signposted storage area on site for the collection of waste; g. All domestic waste is to be removed from site and disposed of at a registered solid waste landfill site as mentioned in the Basic Assessment Report;	Applicant	**Monitoring Action:** Annual Environmental Audit Checklist and regular inspections. **Responsible Person/Party:** Applicant and Operations Manager **Monitoring Frequency:** Monthly	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	h. Care must be taken to ensure that no waste fall off disposal vehicles on-route to the landfill. If needed, a tarpaulin can be utilised; i. The burning or burying of solid waste on site is prohibited. Do not burn PVC pipes or other plastic materials, as this is regarded as hazardous waste; j. Littering by personnel shall not be permitted; k. General refuse/rubbish shall be removed from site on a weekly basis to an approved registered landfill site or as soon as the waste bins are reaching full capacity; l. Minimise waste by sorting different waste streams into recyclable and non-recyclable waste; m. Hazardous waste must be sorted from non-hazardous waste and disposed of at a hazardous treatment facility, records and proof of disposal must be kept; n. A register must be kept of the quantities of waste disposed and proof of disposal (safe disposal slips or certificates) must be available at the site office; and, o. All biological material not used after cutting, or collected from the sieves (feathers, fat, blood) after slaughtering, as well as Dead-on Arrival Birds delivered to the facility, must be collected and processed at the Sterilizing Plant accordingly. The resulting Feather meal will then be sold to prospective clients.			
1.4	**Aspects:** Traffic. **Impact:** Traffic impacts associated with the movement of vehicles within the area. **Objective:** Non-disturbance of current traffic volumes and routes. **Mitigation/Management Measures:** a. All speed limits need to be adhered to;	Applicant	**Monitoring Action:** Incident Register; Photographs; Audit Checklist	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	b. Abnormal loads must be timed to avoid times of year when traffic volumes are likely to be higher, as would be expected over national holidays, weekends and school holiday periods; c. Any damage to public roads is to be reported to the management Authority and repaired to its original condition; and, d. Abnormal loads may not be transported after dark		**Responsible Person/Party:** Applicant **Monitoring Frequency:** Annual	
1.5	**Aspects:** Waste, Emissions and Odour Handling. **Impact:** Pollution of environment with waste materials. **Objective:** Appropriate management of waste. **Mitigation/Management Measures:** a. Provide adequate waste bins on-site equipped with a lid to ensure no pollution; b. General waste must be collected in containers disposed of bi-monthly or more frequent as needed at the nearest permitted Municipal landfill site; c. Recyclable waste must be recovered for recycling purposes; d. Establish a meteorological database which record the wind, rain and temperatures; e. Establish odour complaint sheet and log every day where applicable; and, f. The approved Standard Operating Procedure (Document No.: OHSaES 7.8.18P) currently implemented at the facility must be complied with at all times regarding Stack emission and odour management. This includes: a. Stack emissions: Correct combustion procedure will be followed to produce a minimum of stack emissions. b. Odours: Odours being emanated from the factory will be prevented by:	Applicant	**Monitoring Action:** Annual Environmental Audit Checklist and regular inspections; Complaints register. **Responsible Person/Party:** Applicant **Monitoring Frequency:** Throughout the life span of the facility	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	i. By having all waste removed at regular intervals as to prevent it from accumulating and decomposing on site. ii. Where possible all effluent and sanitary drains will be covered with a solid type cover/lid. iii. In the case of animal matter being processed it must be processed per day. In cases where it has to stand over for longer than a day, it must be effectively covered as to limit emanating of odours. Should this not be possible, the animal matter must be immediately disposed of and treated in an appropriate manner at a landfill registered for this purpose. iv. In the case of effluent treatment systems, it must be ensured that the effluent is treated with recognisable chemical substances as to prevent odours. Where possible, effluent puts to be covered effectively with a canvas or lid.			
1.6	**Aspects:** Surface water, groundwater and/or existing storm water systems. **Impact:** Degradation of water resources. **Objective:** Ensure the proper working status of all stormwater channels. **Mitigation/Management Measures:** a. Measures must be implemented to prevent the contamination of clean run-off from the site in order to protect the degradation of the drainage areas; b. Stormwater must be conducted in a manner which prevent soil erosion (i.e., natural areas must be landscaped in order to ensure energy is removed from run-off); c. Stormwater control should be done by cleaning and repairing the pipelines when necessary; d. Drip trays must be placed beneath all stationary operational equipment;	Applicant	**Monitoring Action:** Stormwater monitoring records; visual inspection and photographic records. **Responsible Person/Party:** Applicant	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	e. Hazardous substances must be stored within a bund area able to contain 110% of the volume of the substance stored within; f. Should a spill occur on an impermeable surface such as cement or concrete, the surface spill must be contained using oil absorbent materials; g. Adhere to all regulations, management plans, method statements, standard operating procedures and guidelines with regards to the storage, management, treatment and use of water; and, h. No water containing waste may enter any of the watercourse systems directly.		**Monitoring Frequency:** Throughout the life span of the activity	
1.7	**Aspects:** Water Conservation (Reservoirs). **Impact:** Wasting water as a result of negligence. **Objective:** Promote and implement water use efficiency mechanisms. **Mitigation/Management Measures:** a. Re-use water were possible; b. Implement rain catchment strategies; c. Prevent leakages at taps and hoses by means of maintenance; d. Capture and reuse stormwater runoff for site cleaning and truck washing; e. Make sure that sediment, concrete, sand and rubbish does not end up going down the stormwater drain. Cover or filter stormwater inlets and drains; and, f. Require workers to use a broom rather than a hose to clean paths and gutters. If water use is necessary, use high pressure hoses which are both water efficient and more effective cleaners.	Applicant	**Monitoring Action:** Monitoring of water conservation measures. **Responsible Person/Party:** Applicant **Monitoring Frequency:** Throughout the life span of the activity	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
1.8	**Aspects:** Health and Safety. **Impact:** Dangerous working conditions for workers. **Objective:** To prevent any casualties on site. **Mitigation/Management Measures:** a. Ensure that PPE is available to Personnel; b. Adhere to the Occupational Health and Safety Act; c. Keep the first aid kit stocked; d. Issue all workers with necessary health and safety items; e. Potentially hazardous areas must be demarcated with danger tape; f. Appropriate signage must be placed to caution employees and contractors not to enter certain structures without authorisation; g. Regular safety inspections must be conducted to ensure that participants are equipped with necessary safety equipment; h. All personnel to wear hard hats and reflector jackets at all times; and, i. Teach the workforce how to act should someone digest poison accidentally.	Applicant and Health and Safety Representative	**Monitoring Action:** Incident Register; Photographs; Audit Checklist **Responsible Person/Party:** Applicant and Health and Safety Representative **Monitoring Frequency:** Bi-Monthly	
1.9	**Aspects:** Pesticides to control pests such as flies and rodents. **Impact:** The Processing Plant will use pesticides (e.g., organic compounds and organo-metallic compounds) to control flies, rodents, and vermin to prevent diseases (flies are carriers of diseases such as *Salmonella*, *Eschericha ecoli* as well as *Streptococcus* and *Staphylococcus*). **Objective:** Ensure the safe application and use of pesticides on site.	Applicant	**Monitoring Action:** Regular inspection of all infrastructure on site.	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	Mitigation/Management Measures: a. Flies must be controlled on a daily basis, where motorized spraying will be used in and around the processing facility with a substance such as larvicide, deltamitine or any other substance which is registered should it become necessary; b. The best method is to identify larvae "hot spots" and to do spot application; c. All spraying events must be recorded in a book for record purposes and a map must be drawn up of these larvae "hot spots"; d. Biological control can also be contemplated but this method has proven to have its share of practical problems at larger facilities which must be taken into consideration properly (e.g., Biofly, Kunafin etc.); e. Ensure that a pest control checklist has been set up, which will be applied once a month as an audit, where after the results will be reported to the operations manager, who will report the finding to the applicant and the Authorities, if requested; f. A framework and ground plan must be set up by the Pest Control Employee and the Auditor that will include the type of bait used, the targeted pest and the method (spaying etc.) applied at each baiting station; g. A status report should be kept at each station that will include the following: a. Pest; b. Type of bait used; c. Volumes/ mass of the bait; d. The method of bait application; e. Success rate (e.g. none, mild, good); f. Concentration;		**Responsible Person/Party:** Applicant, pest management subcontractor and Auditor **Monitoring Frequency:** Daily	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE	RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
g. Date of visit/ replenishment; h. Circumstances (wet/ dry or indoors/ outdoors); i. Description of the location; and, j. The incidents. h. Ensure that wet- and dry chemicals are locked up separately, where a register must be in place at the storeroom which must record the daily income of new poison and removals for use; i. Use prescribed baiting boxes, do not scatter the bait openly; j. Replenish bait stations until bait is taken no more; k. Dispose of uneaten bait in accordance with general norms and standards; l. Empty containers must be returned to the supplier if possible; m. Ensure that the live bird delivery and slaughtering areas are clean and dry, as it will reduce flies and rodents; and, n. Ensure rodent control by: a. Ensuring good sanitation; b. Storing foodstuff (workforce) in appropriate containers; c. Seal cracks found in the foundation; d. Seal all holes where pipes pass through exterior walls; e. Remove grass and/ or rubble from the perimeter of the buildings; f. Maintain good drainage; g. Ensure that no standing water is present; h. Ensure watertight taps; and,			

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	Do mechanical trapping as far as possible at critical points (e.g. feedstore).			
1.10	**Aspects:** Humane handling practices. **Impact:** Bruises, mortalities, transport and stress associated with the handling of chickens. **Objective:** Ensure the safety and health of the chickens. **Mitigation/Management Measures:** a. A standard form, which records the date and place of origin, should be used to list typical forms of bruises; b. Ensure that overloading of chickens does not take place, as this is the main reason why bruising and stress of chickens occurs; c. Daily checks must be conducted during loading and transport to ensure that chickens have received food and water and to make sure the containers are up to standard; d. Good transportation and handling must be in place to ensure that the chickens are not stressed; e. Ensure regular inspection and training; handlers must be emotionally stable and not vent their anger/ frustrations on the animals; and, f. The food safety management system currently implemented with regards to Animal Welfare and the humane handling practices must be complied with at all times.	Applicant	**Monitoring Action:** Incident Register; Photographs; Audit Checklist **Responsible Person/Party:** Applicant and Auditor **Monitoring Frequency:** Throughout the life span of the activity	
1.11	**Aspects:** Pathogens due to the handling and processing of carcasses of the chickens. **Impact:** The carcasses of the chickens can be a source of odours, flies and diseases if not managed correctly. **Objective:** Ensure the safety and health of both the personnel and chickens on site. a. The amount of Dead-on Arrival Birds and the information regarding the cause of the deaths should be recorded regularly and should provide a good index of the status of the environmental health at the Processing Plant;	Applicant	**Monitoring Action:** Incident Register; Photographs; Audit	

OPERATIONAL PHASE: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE		RESPONSIBLE PARTY/PERSON (implementation of mitigation measures)	MONITORING: ACTION, RESPONSIBLE PERSON/PARTY AND FREQUENCY	COMPLIANT? (for use by Environmental auditor)
	b. A veterinarian must inspect chickens for disease that may by contagious. Should this occur, no animals may be transported and all veterinarian precautionary measures must be applied to ensure containment/ confinement of the disease; and, c. The food safety management system that is currently implemented must be complied with at all times.		Checklist; Complaints register. **Responsible Person/Party:** Applicant and Operations Manager **Monitoring Frequency:** Weekly	

9.3 Impacts during the Decommissioning Phase

It is not anticipated that the Processing Plant will be decommissioned in the near future and therefore the proposed impacts therefore were not assessed.

10 EMERGENCY RESPONSE PLAN

The following table is provided to assist the Auditor and Operations Manager with remedial work options and problem solving:

Observation or Event	Action by Inspector or Observer	Action by Construction Contractor
Spillage of diesel or hydrocarbons on soil	Report to construction Contractor and continue observations. Also check: ➢ That the source causing the spillage has ceased, and that the affected area is isolated to prevent spreading of the hazardous substance, where after it must be rehabilitated.	Action will be required as soon as possible (ASAP) by following the next steps: ➢ Dig down into the soil to see how far down the pollution penetrated, ➢ If less than 300mm penetrated: a. Turn the soil over to expose it to the air. b. Apply Mono Ammonium Phosphate (MAP) at a rate of 58gr/m² to the overturned soil. c. Water enough to keep the soil moist. ➢ If penetration is greater than 300mm: a. Remove the affected soil and spread in a layer not more than 300mm thick. b. Apply MAP at a rate of 50gr/m². c. Water enough to keep the soil moist. ➢ Repeat the above steps every 6 weeks or until the soil is clean.
Erosion	Report to construction contractor and continue observations. Also check: ➢ That all vehicular movement is restricted to existing access routes to prevent crisscrossing of tracks through undisturbed areas.	Action will be required ASAP: ➢ Implement erosion protection works at identified problem areas. ➢ Implement remedial works at affected areas in order to restore the area to its previous or better status.

11 INCIDENT REGISTER

INCIDENT REGISTER: PROPOSED EXPANSION OF THE SUPREME POULTRY CHICKEN PROCESSING PLANT'S SLAUGHTERING THROUGHPUT FROM 120 000 UNITS TO 150 000 UNITS PER DAY AND FOR THE RECOVERY, RECYCLING AND TREATMENT OF CHICKEN PROCESSING WASTE TO FEATHER MEAL ON ERF 9907, MAHIKENG, NORTH WEST PROVINCE					
NAME OF PERSON REPORTING THE INCIDENT	**INCIDENT**	**DATE OF INCIDENT IDENTIFIED**	**HOW WAS INCIDENT ADDRESSED?**	**DATE OF RECTIFICATION**	**SIGNATURE**

12 REHABILITATION MEASURES AND CLOSURE PLAN

The rehabilitation phase follows completion of any construction works which may occur in the future (not anticipated as part of this application and project description), and entails site clean-up and site rehabilitation following the removal of a Contractor from site. The underlying aim of rehabilitation is the process of returning land within the site boundary to some degree of its former natural state.

Key aspects within this process include the:

- Removal of structures and infrastructure;
- Handling of inert waste and rubble;
- Handling of hazardous waste and pollution control;
- Final shaping of the terrain;
- Topsoil replacement and soil amelioration;
- Ripping and scarifying of surfaces;
- Planting of indigenous occurring vegetation (if deemed necessary); and,
- Maintenance.

12.1 Rehabilitation Measures

Removal of structures and infrastructure
• On completion of a section of works, the area must be rehabilitated by suitable landscaping, levelling, topsoil dressing, land preparation, alien plant eradication and where ascribed for by the Environmental Auditor, vegetation establishment; • Clear and completely remove from site all construction structures and temporary infrastructure; • All permanent infrastructure must be returned to a useable state.
Inert waste and rubble
• Remove all inert waste and rubble, such as excess rock, any structural foundations and remaining aggregates. Only once this material has been removed, the site shall be re-instated and rehabilitated; • All rubble and litter should be cleared from the site and stored in designated waste bins and/or stockpile areas respectively; • The principle of reduce, re-use and recycle should be followed; • No dirty water runoff from the construction and decommissioning site must be permitted to reach the watercourses around the proposed site; • Domestic waste must be completely removed from the site and disposed of at a landfill site.
Topsoil replacement and soil amelioration
• The reinstatement of disturbed areas must follow immediately after the removal of structures and temporary infrastructure; • Topsoil backfilling must be undertaken when the soil is dry, and not following any recent rainfall events;

- The replacement of topsoil must be sought in situ with construction where possible, or as soon as construction in an area has been completed;
- All stockpiled topsoil together with herbaceous vegetation must be replaced and redistributed over a disturbed area such as temporary access roads;
- Topsoil must be returned to the same site from where it was stripped;
- When insufficient topsoil remains, soil of a similar quality can be obtained from a nearby area within the construction area which was disturbed;
- Once topsoil has been returned to the ground, stripped vegetation must be randomly spread by hand over the area.

Maintenance

- Construction activities should be limited to the smallest possible area;
- Construction vehicles should use existing authorized service roads;
- Implement suitable alien invasive species establishment prevention measures during the construction phase such as proper storage, transport and disposal of plant material and minimizing disturbance to the areas surrounding the development footprint;
- Alien invasive vegetation material cleared during and after construction activities must be adequately contained and disposed of at a suitable, certified 'green waste' disposal site to prevent further spreading;
- All re-growth of invasive vegetative material will be monitored by the Developer for one year;
- All areas under rehabilitation are to be treated as no-go areas using danger tape and steel droppers/fencing and cornered off, to prevent vehicular, pedestrian and livestock access;
- Any re-vegetation must be done using plant species in occurrence on site;
- Control invasive plant species and weeds using approved methods of manual or chemical intervention;
- The re-establishment of vegetation must be allowed several rainy seasons, given the nature of the climate and region.