PHS CONSULTING
environmental, land-use, eco-tourism planning and management.

ENVIRONMENTAL MANAGEMENT PROGRAMME:

UNAUTHORISED ESTABLISHMENT OF FREE-RANGE CHICKEN HOUSES ON PORTION 349 OF FARM 811, TESLAARSDAL (CALEDON DIVISION)

Applicant: Graham Grindley-Ferris

Date: May 2026

Registered EAP: Paul Slabbert – EAPASA Reg. No. 2019/1036

Candidate EAP: Josie Howard - EAPASA Reg. No. 2025/19917

DETAILS OF THE APPLICANT

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EAPASA registration no:	Paul Slabbert – 2019/1036 Josie Howard – 2025/19917 (candidate EAP)	

The curriculum vitae of the EAP is attached as **Annexure 1.**

DETAILS OF PROJECT

Title:	Unauthorised Establishment of Free-Range Chicken Houses on Portion 349 of Farm 811, Tesselaarsdal (Caledon Division)
DEA&DP Reference No.	24G Consultation: 14/2/4/1/E4/5/0015/25
Process:	Section 24G
Report:	Draft Environmental Management Programme

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KEY TERMS AND ABBREVIATIONS

Auditing - A systematic and objective assessment of an organization's activities and services conducted and documented on a periodic basis to a predetermined standard.

Contractor –

(i) the main or specialised contractors as engaged by the Owner from time to time for the execution of the works, including all sub-contractors appointed by the main contractor of his own volition for the execution of parts of the works;

(ii) any other contractor from time to time engaged by the Owner directly in connection with any part of the Works which is not a nominated subcontractor or a subcontractor to the main contractor.

Council – the local authority, Theewaterskloof Local Municipality, its successors in title or assigns.

Department of Environmental Affairs and Development Planning (DEA&DP)– the provincial authority for sustainable environmental management and integrated development planning.

Developer/ Owner/Applicant – Graham Grindley-Ferris

Environmental Management Programme (EMPr) an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation, and decommissioning of a project are managed, and that positive benefit of the projects are enhanced.

Environmental Control Officer (ECO) – a suitably qualified environmental consultant to be appointed by the Owner to oversee the implementation of the EMPr until the completion of works on the site.

National Environmental Management Act (Act 107 of 1998, as amended) (NEMA)– national legislation that provides principles for decision-making on matters that affect the environment.

National Water Act (NWA) – national legislation that provides principles for decision making on matters that relate to watercourse/water use/water bodies.

Property – Portion 349 of Farm 811, Tesselaarsdal (Caledon Division)

Site - Area where the proposed development will take place

Workdays – the days of the week excluding Sundays and public holidays.

SECTION 1: CONTEXTUAL INFORMATION

1.1. Introduction

PHS Consulting was appointed by Graham Grindley-Ferris to compile an Environmental Management Plan (EMPr) for the rectification of the unauthorized development of chicken houses on his property. An EMPr describes mitigation measures in detail, and is prescriptive, identifying specific individuals or organizations responsible for undertaking specific tasks to ensure that impacts on the environment are minimized during construction, operational and related activities. This process is undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended (NEMA) and the EIA Regulations 2014, as amended.

As an open–ended document, information gained during on-going monitoring of procedures on site could lead to changes in the recommendations and specifications of this document. This document forms an agreement between the Department of Environmental Affairs and Development Planning (DEA&DP) and the Applicant that the environmentally sensitive features on the site will be suitably protected during the lifespan of the activity through the implementation of the applicable mitigation measures.

This EMPr is intended to guide and manage the construction and operational phases and general maintenance activities associated with the proposal. The construction phase is however already completed.

1.2. Project Background & Proposal

The activity is complete and currently operational.

The unauthorised establishment of free-range chicken houses took place on Portion 349 of Farm 811 (SG21 Code: C01300000000081100349). The property is 5.78ha in extent and is located inside the proclaimed Tesselaarsdal local area, 3km northeast of Tesselaarsdal and 15km southeast of Caledon within the Theewaterskloof Municipality (see Figure 1). The farm is accessed off an existing dirt road. The site has been used for agricultural practices for more than 20 years, transforming the majority of the property. The previous owners used the land for cattle grazing as part of a dairy operation.

The Applicant expanded his free-range hen operation from 3000 hens to 38 500 hens. Currently, there are 10 chicken houses on the property (Figure 2). 8 of these 10 houses are considered unlawful and require Environmental Authorisation. The unauthorised chicken houses can house approximately 35 500 hens. All chicken houses include a free-range grazing area that is grassed with scattered yellow wood trees. New gravel farm roads provide access to each hen house.

Non-infectious mortalities are fed to pigs kept on site, there are currently 8 pigs on the farm. Infectious mortalities are disposed of in a pre-designated area (small pit and hen compost), 10 m to right of the pigs. The volumes are very low (up to 5 a day).

Houses are cleaned at the end of each 80-week cycle, by means of dry sweeping. The manure and hay mixture is then collected by farmers who use it to supplement their fertiliser since it is a valuable resource. Floor areas are then

rinsed with a high-pressure hose. The wash water is directed onto the adjacent grassed and planted area used by the free-range chickens. Should these areas be saturated, any additional water is directed via stormwater channels to a retention area/pond.

Water usage is low and is calculated at approximately 6000 litres per day. Rainwater is collected from the various roofs and stored in jo-jo tanks adjacent to the chicken houses. Approximately 20 tanks (5 000 or 10 000 litre tanks) are located on the property for the collection of rainwater from the various hen house roofs and pack shed. It is estimated that roughly 300m^3 of rainwater is harvested per annum. The rainwater is supplemented by water that is pumped from the river into two dams are the property. Approximately 2000m^3 of water is pumped into the two dams per annum. The water is then pumped from the dams to three tank reticulation systems located close to the chicken houses. These tanks can store approximately 80 000 to 100 000 litres of water.

Figure 1: Google Earth satellite image showing the location of the property.

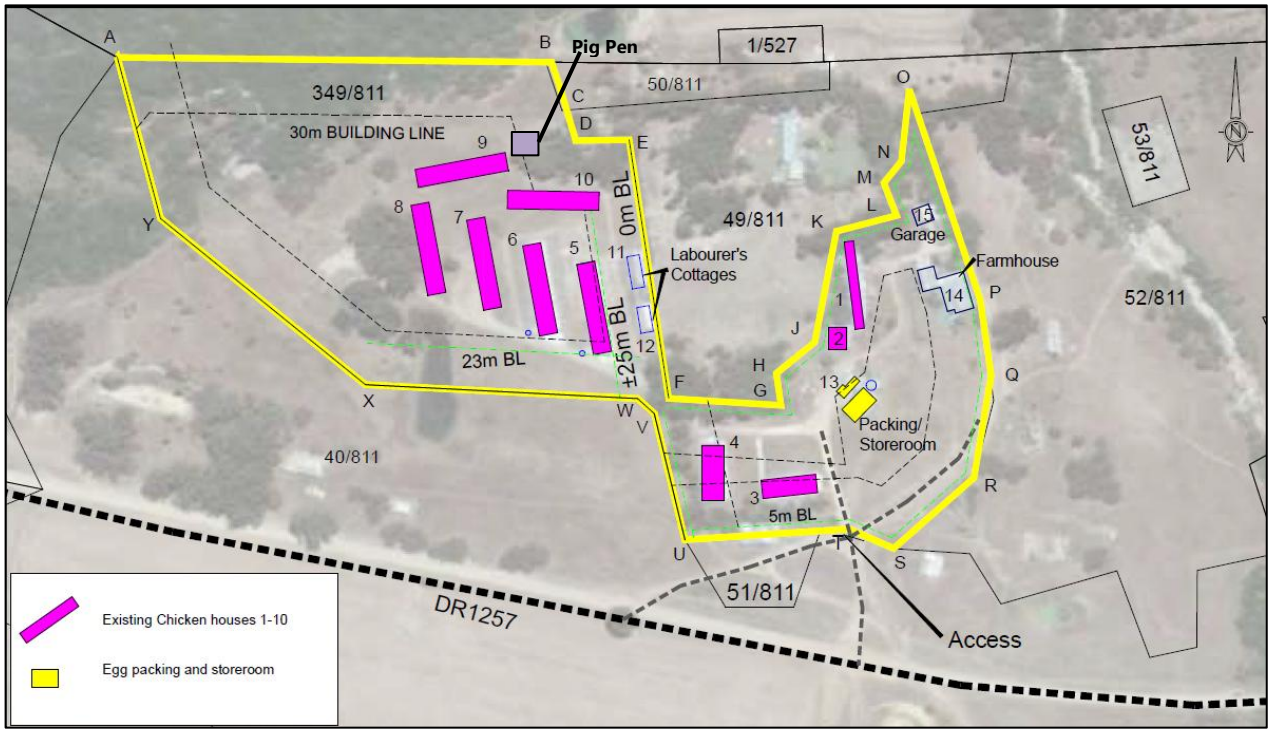

Figure 2: Site layout.

1.3. Environmental Attributes of the site

According to the SANBI Vegetation Map of 2018, Western Rûens Shale Renosterveld would historically have been present within the development footprint. At the time of development, this vegetation types was listed as 'Critically Endangered'. It should however be noted that the earliest available Google Earth Imagery which is dated 2004 shows the site as transformed agricultural fields/grassed lands. As such, no natural vegetation was present within the development footprint at the time of construction of the chicken houses.

The Hartebees River is located to the northwest of the site and the Klein River is located roughly 100m to the east of the site. According to the Freshwater Specialist, "The impacts associated with the existing activities are considered to be of an indirect nature and of very low risk, with no current evidence of habitat loss or hydrological alteration."

1.4. Purpose and Status of the EMPr

An Environmental Management Plan (EMPr) can be defined as "an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented; and that the positive benefits of the projects are enhanced". EMPr's are therefore important tools for ensuring that the management actions arising from EIA processes are clearly defined and implemented through all phases of the project life cycle.

The EMPr forms part of the contract identifying and specifying the procedures to be followed by the Applicant in order to eliminate or reduce adverse impacts during the construction and operational phase. Should the owner or employee persistently fail to observe provisions of the EMPr, the Environmental Control Officer (ECO) should notify

the relevant authority for a compliance audit, and possibly the prosecution of an individual or the removal of the individual from site.

The Environmental Contract ascribes legal status to the EMPr and any subsequent amendments thereto. The EMPr includes all relevant documentation within this report and/or referred to within it. The National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), and the respective Regulations are pertinent to this development. All activities on site must adhere and comply with the provisions of these Acts.

In general, the EMPr can consist of the following phases: planning & design; pre-construction activities; construction activities; rehabilitation &/or decommissioning; and lastly operational activities. However, the need to include all the above phases is dependent on the scale and scope of each individual project.

The construction of the chicken houses and roads has been completed therefore the Planning & Design and Construction Phases are complete. The EMPr focusses primarily on the operational phase of the development and is intended to guide operational aspects in line with relevant legislative requirements and the recommendations made by the specialist and/or consultant(s) as applicable. In addition, the freshwater ecologist has recommended mitigating measures to reduce the current negative impact. The following content is required in the EMPr in accordance with Appendix 4 of the EIA Regulations:

a) *details of–*
    i. *the EAP who prepared the; and*
    ii. *the expertise of that EAP to prepare an, including a curriculum vitae;*
b) *a detailed description of the aspects of the activity that are covered by and as identified by the project description;*
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;*
d) *a description of the impact management outcomes, 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;&*
    v. *where relevant, operation activities;*
e) *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; &*

iv. *comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable;*

f) *the method of monitoring the implementation of the impact management actions contemplated in paragraph (f);*

g) *the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f);*

h) *an indication of the persons who will be responsible for the implementation of the impact management actions;*

i) *the time periods within which the impact management actions contemplated in paragraph (f) must be implemented;*

j) *the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f);*

k) *a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations;*

l) *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. *risks must be dealt with in order to avoid pollution or the degradation of the environment;*

m) *any specific information that may be required by the competent authority.*

The EMPr forms part of the contract identifying and specifying the procedures to be followed by all contractors and employees of the facility to eliminate or reduce adverse impacts of the works on the environment. Should a contractor or employee persistently fail to observe the provisions of the EMPr, the Environmental Control Officer (ECO) can recommend that the employee be removed from the site. Should the owner or employee persistently fail to observe provisions of the EMPr, the ECO should notify the relevant authority for a compliance audit.

Copies of the EMPr will be made available to all senior personnel on site, who will be required to familiarize themselves with the contents of the document and to follow procedures accordingly.

The EMPr will include goals and objectives set to achieve the required environmental standards. The S24G report identified issues that will have to be addressed in the operational phase to ensure mitigated impact on the environment

The Applicant will be responsible for the overall implementation of the EMPr.

NOTE: This EMPr incorporates the findings of the Aquatic Biodiversity Compliance Statement (April 2026) undertaken for the site. The identified risks have been incorporated into the EMPr, and additional general risks have been included. The EMPr must be implemented in conjunction with conditions contained in the Environmental Authorization. The applicant and ECO must use the above-mentioned documents throughout the operation of the development. The EMPr will also become a condition of Environmental Authorization.

1.5. Relevant legislation and policies

This EMPr aims to highlight historic design, capacity, management, and use issues and proposes a means to manage these within the framework of environmental best practice, the guiding principles of the National Environmental Management Amendment Act (Act 62 of 2008).

The following is a list of the legislation that may be pertinent to the project and its long-term operational management. All activities on site must ensure compliance with the provisions of the legislation as applicable:

- The Constitution of the Republic of South Africa (Act 108 of 1996)
- National Environmental Management Act (Act 107 of 1998) – NEMA
- Government Notices 327, 325 and 324 in terms of NEMA – EIA Regulations
- The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) - NEMWA
- National Heritage Resources Act 1999 (Act 25 of 1999) - NHRA
- National Water Act 1998 (Act 36 of 1998) – NWA
- Occupational Health and Safety Act (No. 85 of 1993)
- Basic Conditions of Employment Act 75 of 1997
- Conservation of Agricultural Resources Act 43 of 1983

SECTION 2: PROJECT PHASES

The construction of the chicken houses and access roads on Portion 349 of Farm 811 has been completed. As such the **Planning & Design and Construction Phases** have been completed. The development took place on existing agricultural fields/fallow lands.

The **Operational Phase** consists largely, of the day-to-day running of the free-range egg farm on the 5.78ha property (footprint 2.7 ha), including maintenance of infrastructure.

- Management of water resources (dams and rain water tanks)
- Erosion control and road maintenance
- Maintenance of chicken houses
- Maintenance of landscaped areas

- Waste management and disposal
- Management and maintenance of stormwater systems

SECTION 3: RESPONSIBILITIES AND ENFORCEMENT OF THE EMPR

3.1 The Competent Authority

DEA&DP is the competent in this instance. This Directorate has overall responsibility for ensuring that the Applicant complies with the conditions of its EA as well as this EMPr once approved. During all phases of the EMPr the competant authority will have the following role to play:

- The authorities may perform random controls to check compliance.
- Review Monitoring and Audit reports, if required.
- Whenever necessary, the authorities are to aid in understanding and meeting the specified requirements.
- Recommend suitable corrective measures are undertaken by the Applicant where non-compliance has been reported.
- Enforcing compliance by the Applicant

3.2. The Applicant

The Applicant (Holder of the EA) is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. The Applicant therefore has overall and total environmental responsibility to ensure that the EMPr is implemented and that both the EMPr and the EA are always complied with. The Applicant is also responsible for ensuring that all other environmental related legislation is complied with (i.e. CARA). The Applicant is responsible for the development and implementation of the conditions of the EA.

Amongst the general responsibilities above the Applicant is also responsible for:

- Appointing an ECO and environmental auditor (where required).
- Take the necessary action in terms of non-compliances.
- Ensuring that all the Applicant's, staff, representatives, contractors, consultants and any other agent operating under the employ of the Applicant comply with the EA.
- Considering the ECO's observations and recommendations and acting where required.

The Applicant must ensure that he/she is fully familiar with the requirements of this EMPr, any relevant Environmental Authorisation, General Authorisation (water use) or any other legally binding documentation.

Environmental awareness training of all staff/contractors involved in the EMPr work activities will be completed by the Site Manager or ECO on their roles and responsibilities, compliance to the EMPr and required monitoring as

outlined in Section 7 of this document. The Applicant must ensure that the required Environmental awareness training of all staff/contractors takes place.

3.3. Site Manager

An operations/site manager or similar(if not the Applicant), must be identified to assume overall responsibility for managing the site, employees, and contractors and for ensuring that the environmental management requirements are met. All decisions regarding environmental procedures and protocol must be approved by the site manager, who also has the authority to stop any activity in contravention of the EMPr.

The site manager will have the following environmental control responsibilities:

- Present environmental awareness training to all contractors/staff in conjunction with the ECO,
- Regularly monitor the site and operation of the facility for potential environmental issues,
- Consult with the ECO, landowner, and all staff/contractors to resolve emerging environmental issues,
- Issue any instructions from the ECO to the management team via an appropriate management tool, and
- Keep a Site Control Register consisting of the following sections:
    - The **Site Control Sheet** in which the findings from weekly site monitoring activities are consolidated until buffers and rehabilitated areas are established
    - The **Environmental Site Instruction Section** will be used to record all general site instructions relating to the protection of the environment and instructions issued by the site manager or ECO for the purpose of facilitating the issuing of the site instruction by the Owner until buffers and rehabilitated areas are established.
    - The **Incidents Reporting Section** will be used to record all incidents pertaining to environmental issues onsite as well as remedial actions steps that were or need to be taken until buffers and rehabilitated areas are established.
    - The **Complaints Register** will be used to record all complaints received and responses thereto until buffers and rehabilitated areas are established.

Please note the above list is not exhaustive, the responsibilities of the site manager are adaptive and extent beyond environmental control aspects.

3.4. Environmental Control Officer (ECO)

SINCE THE DEVELOPMENT ACTIVITIES ARE COMPLETE, NO ECO IS REQUIRED.

A suitably qualified individual will be designated and appointed by the Applicant to fulfill the role of Environmental Control Officer, to ensure and oversee the implementation of the EMPr onsite in its entirety.. The role of the ECO is

essentially seen as an interactive one and should include regular site visits. The responsibilities of the ECO will include:

- To conduct environmental awareness training on the operation of the facility and implementation of the EMPr,
- To review method statements and to determine the most environmentally sensitive options of *modus operandi* for the development tasks,
- To assist the contractor/site manager in finding environmentally responsible solutions to problems,
- To oversee the implementation of environmental procedures set out in this document,
- To report on environmental issues,
- To receive notice and minutes of all site meetings,
- To maintain open and direct communication with the landowner, site manager, contractors, and authorities,
- To monitor contractors, the EMPr and the implementation thereof; followed by reporting to the relevant authorities,
- To take immediate action on site where clearly defined no-go areas/actions are violated, or in danger of being violated, and to inform the landowner and site manager immediately,
- To keep an up-to-date record of works on site, as they relate to environmental issues in the Site Control Register including records of non-compliance incidents, and
- To be contactable by the public regarding matters of environmental concern as they relate to the development.

Reporting and record keeping by the ECO should include monthly monitoring reports should any construction take place. The ECO must keep photographic records of all site visits and records of communication to and from relevant authorities.

3.5 The Environmental Auditor

Where required by the EA an environmental auditor will be appointed by the Applicant. The auditor will be an independent environmental consultant. The auditor will carry out a compliance audit based on the EA and of all of the activities being undertaken.

SECTION 4: IMPACTS AND MITIGATION

The following possible impacts and associated mitigation measures have been identified within the proposed scope of work for the operational phase of the development:

	Impact	**Proposed mitigation**
1	Indirect impacts on wetland and riparian ecosystems - Water quality risks associated with washing of chicken houses	Mitigation in place (to be continued with): • Chicken houses are dry-cleaned/swept and manure removed prior to washing therefore reducing the contaminants in the wash water • Wash water is discharged into grassed swales, where it typically infiltrates or evaporates before reaching the riparian zone, thereby minimising the risk to the receiving freshwater system Additional Mitigation: • Construction of a small, vegetated settling/attenuation pond at the end of the grass swale, to further polish wash water before infiltration. • Ensure that clean stormwater is diverted away from contaminated areas to prevent unnecessary mixing and mobilisation of pollutants during rainfall events. • Use biodegradable, low-toxicity cleaning agents where possible, and strictly control quantities used during washing operations. • Continue with dry-cleaning practices and ensure that all manure is promptly removed and stored/handled in a manner that prevents leaching or runoff. • Engage with the Working for Water Programme to facilitate the phased removal of invasive alien tree species within the broader wetland and riparian zone, thereby improving ecosystem functioning and resilience to potential future impacts. Given the extensive scale and density of the infestation within the broader wetland area, such clearing efforts are beyond the reasonable capacity of the landowner to undertake independently and will require institutional support. • Regularly inspect and maintain drainage pathways, swales, and infiltration areas to prevent blockages, erosion, or preferential flow paths towards the wetland.
2	Waste generation	• Manure and hay mixture is removed from site by neighbouring farmers who use it to supplement their fertiliser. • Broken eggs are fed to the pigs. • Non-infectious mortalities are fed to the pigs. • Infectious mortalities are disposed of in an on-site mortality pit. • Minimise new materials brought on site. • Reuse existing materials where possible. • Maximise recycling and waste separation onsite. • No burning of waste on site. • Worker awareness on site regarding waste minimisation and recycling
3	Odour generated from chicken pens	• Pens are thoroughly cleaned at the end of each cycle. • Manure is removed from site at the end of the cycle. • Mortalities must be immediately disposed of.

SECTION 5: REQUIREMENTS AND OPERATIONAL GOALS

The S24G report identified several impacts and concerns that were addressed through the process. Many of the issues need to be mitigated by management procedures and therefore goals need to be set to ensure implementation of these measures. Management activities are described to achieve the objectives together with monitoring and target criteria.

5.1. Components of Operational Management

- Goals: The key environmental goals are set for the operation of the property.
- Objectives: These are set to meet the goals.
- Risk: If the goal is not achieved.
- Actions: Measures put in place to achieve objectives.
- Monitoring: To check if the objectives are achieved.
- Targets: Indicators of the effectiveness of the programme.
- Remedial Action: If targets aren't met.

5.2. Goals

The following goals were set to ensure minimal environmental impact during the operation and life cycle of the project:

1. Protect the surrounding natural environment
2. Ensure aesthetic appeal of the site
3. Create awareness of waste management and waste minimisation
4. Create awareness of water conservation and sewage management

Goal 1: Protect the surrounding natural environment					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
Implement Bio-security measures	• Contamination of wild birds • Contamination of chickens	• Train all staff and contractors to ensure an understanding of bio-security measures • Set strict biodiversity guidelines to be adhered to • Determine baseline for regarding cleanliness of units • Delegate responsibility to specific members of staff for aspects of biosecurity • Remove manure after each rearing cycle • Ensure that no accidental run-off from the units leaves the development footprint.	• Monitor management's bio-security guidelines • Monitor staff training and actions • Monitor staff's adherence to bio-security measures • Monitor cleanliness of units according to baseline which has been set. • Monitor adjacent water resources (if relevant) to ensure that no pollution of water takes place • Minimise use of washing water to ensure that no run-off occurs	• Ensure environmental health – for surrounding environment as well as for chickens • Ensure that staff understands importance of bio-security measures.	• Operator to take immediate action against non-compliance • Penalise individuals who do not comply to bio-security measures which have been implemented • Deviation from job description must be dealt with in terms of contractual or employment terms of reference.
Management & Conservation of Water Resources	• Contamination of water resources • Overuse of water resources	• Minimize the use of wash water onsite. • Dry-sweep chicken pens before high pressure washing. • Minimize the use of wash water inside units such that the moisture left after high pressure washing can evaporate. • No water used during washing of units to be re-used on site. • Minimise water used on site for irrigation. • Construction of a small, vegetated settling/attenuation pond at the end of the grass swale, to further polish wash water before infiltration. • Ensure that clean stormwater is diverted away from contaminated areas to prevent unnecessary mixing and mobilisation of pollutants during rainfall events.	• Monitor intake quality to ensure that no pollution is taking place. • Measure usage through installation of water meters on abstraction point. • Internal audit of the facility to ensure compliance with standard operating procedures • Regularly inspect and maintain drainage pathways, swales, and infiltration areas to prevent blockages, erosion, or preferential flow paths towards the wetland.	• Ensure that all water resources remain unpolluted. • Ensure that irrigation system is leak free – all leaks to be repaired immediately.	• Report and repair infrastructure failure immediately. • Operator to take immediate action against non-compliance. • Penalise individuals who do not comply to bio-security measures which have been implemented. • Deviation from job description must be dealt with in terms of contractual or employment terms of reference.

		• Use biodegradable, low-toxicity cleaning agents where possible, and strictly control quantities used during washing operations. • Continue with dry-cleaning practices and ensure that all manure is promptly removed and stored/handled in a manner that prevents leaching or runoff. • Engage with the Working for Water Programme to facilitate the phased removal of invasive alien tree species within the broader wetland and riparian zone, thereby improving ecosystem functioning and resilience to potential future impacts.			
		• ***Responsibility: Owner and Site Manager***	• ***Responsibility: Site Manager***	• ***Responsibility: Owner and Site Manager***	• ***Responsibility: Owner and Site Manager***

Goal 2: To ensure aesthetic appeal of the site					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
To minimise/ avoid erosion within the cleared area and on access road(s)	• Degradation of access roads. • Degradation of natural land areas. • Possible sedimentation of onsite watercourses.	• The wetlands and associated buffer areas must be maintained in good ecological state with suitable vegetation cover. • Establish and maintain suitable vegetation cover at all stormwater concentration points (e.g., on the lower property boundary) • Ensure that all vehicles using the access road are road worthy.	• Regular erosion monitoring must take place onsite and on the site access roads.	• Adaptive erosion management onsite. • Limited onsite erosion • Limited road deterioration	• Should any erosion be detected, the ECO or site manager must identify the cause of such erosion and ensure that the most appropriate method of mitigation or stabilisation is employed as soon as possible.
Maintenance of chicken houses.	• Decrease in aesthetic appeal • Poor screening of development • Poor maintenance of houses, fences and natural vegetation • Poor maintenance of landscaped areas • Contamination of wild birds and vice versa.	• All buildings and associated infrastructure that has been erected, must be neat, functional and visually neutral	• Monitor condition of units • Monitor effect of lights on surrounding area • Monitor fence for biosecurity • All faults to be repaired immediately	• All units to be in an acceptable condition	• Deviation from job description must be dealt with in terms of contractual or employment terms of reference.

Maintenance of landscaped area outside of units – Landscaping is to mitigate possible visual intrusion, act as a buffer against noise.	• Decrease in aesthetic appeal • Inappropriate landscaping • Poor screening of development • Misuse of water	• Use only indigenous/ endemic water wise plants to act as buffer area between units and surrounding environment • Implement guidelines for landscaped area • Ensure visual screening • Rain-sensor to be installed as part of automatic irrigation system	• Monitor landscaped area to ensure no alien vegetation • Monitor water use on site • Monitor irrigation system for effective use of water – adjust where necessary	• Ensure effective screening of development • Ensure optimal & effective water use • Ensure landscaped areas act as buffers • Implement alien control programme	• Irrigation system to be kept in optimal condition • Leaks to be repaired immediately
		Responsibility: Owner and Site Manager	***Responsibility: Site Manager***	***Responsibility: Site Manager***	***Responsibility: ECO and Site Manager***

Goal 3: To create awareness of waste management and waste minimisation					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
To minimise and manage waste indoors	• Lack of onsite waste management	• Educate employees to sort waste • Recycle waste • Re-use waste where possible Reduce waste produced	• Check operational components if recycling is followed	Recycling to be actively implemented by the operator, manager and staff	• Refer non- compliance to the operator and site manager
Manage operational waste (including manure)	• Irresponsible waste management • Unsightly and smell • Attraction of pests	• Once chicken houses have been cleaned, manure must be immediately removed from the property. • No composting or storage of manure within the development footprint	• Monitor litter on a weekly basis • Check suitable removal of manure from the development footprint.	• No waste or pollution incidents may occur • Minimise waste to landfill so encourage re-use options	• Any non-compliance to be referred to operator
		Responsibility: Owner and Site Manager	***Responsibility: Site Manager***	***Responsibility: Owner and Site Manager***	***Responsibility: ECO and Site Manager***

Goal 4: To create awareness of water conservation and sewage management					
Objective	**Risk**	**Actions**	**Monitoring**	**Targets**	**Remedial Action**
Responsible and sustainable water use and prevention of contamination of water resources.	• Water wastage • Overloading of sewerage system	• Plant indigenous plants • Water wise gardening • Water gardens and pastures early in the morning or late at night • Use permeable and semi-permeable hard surfaces • Lock farm taps • Development of water awareness interpretative signage	• Check water usage of staff ablutions and gardens	• Water use targets to be set according to water availability	• Water leaks, non-compliance to be reported to operator • Increased awareness programme amongst staff
Manage Sewage system	• Mismanagement • Unsightly and smell • Poor functioning of septic system	• Follow cleaning schedule	• Monitor sewage system on a weekly basis	• No ground water pollution incidents may occur	• Any non-compliance to be referred to operator
		Responsibility: Owner and Site Manager	***Responsibility: Site Manager***	***Responsibility: Site Manager***	***Responsibility: ECO and Site Manager***

SECTION 6: GENERAL MANAGEMENT REQUIREMENTS

The following items must be integrated into the management of the activity whenever relevant:

a) Environmental awareness training

All employees (including seasonal laborers) involved in the operation of the agricultural fields must be briefed on their obligations towards environmental controls and methodologies. The briefing should take the form of an on-site talk and demonstration by the ECO, Site Manager and/or the Landowner. All environmental impacts and aspects and their mitigating measures must be discussed, explained, and communicated to employees.

The environmental awareness education program should commence with entry onto the site and is likely to be an ongoing process. All personnel must be made aware of the details of the EMPr which will be applicable to them. It must be ensured that staff members who are not proficient in the language of instruction are provided with training in a suitable alternative language.

A regularly updated record must be kept of all personnel attending the Environmental Awareness training sessions until buffers and rehabilitated areas are established.

As a minimum the training must include:

- Explanation of the **reason of complying** with the EMPr;
- Discussion of the potential **environmental impacts** of operational activities;
- Employees' **roles and responsibilities on site**, including emergency preparedness;
- Explanation of the **mitigation measures** that must be implemented when carrying out the activities;
- Explanation of the specifics of this **EMPr** and its specifications (no-go areas, etc.);
- Explanation of the **management structure** of individuals responsible for matters pertaining to the EMPr.

Environmental meetings can be held with management, and selected groups of supervisors and/or employee representatives. The meetings will aid in environmental awareness being generated at all levels, as well as assist in identifying new environmental issues, concerns, or potential pollution sources.

On the job training is an essential tool in environmental awareness. Employeeswill be suitably trained in order to identify, prevent, minimize or manage actions or behaviors that could potentially result in negative environmental impacts. Employees will be given details of the expected environmental issues and concerns specifically related to their occupation. Employees will be trained in how to respond if an environmental problem or source of environmental pollution arises. The training will be on-going, and all new employees will be provided with the same standard of training as existing employees.

b) Site Communication Procedures

There is to be continual communication between the landowner, contractor (where relevant), site manager, and the ECO. The ECO will advise the Landowner on factors relating to the EMPr and all environmental matters on site until buffers and rehabilitated areas are established. The ECO is allowed to issue a directive for the suspension of any activities or operations that are required to be stopped as a matter of urgency to prevent serious adverse environmental impacts or potential. The ECO shall without delay report any such actions to the Landowner. Any issues and concerns raised should be addressed as far as possible in as short a timeframe as possible.

A digital Site Control Register will be kept for the purposes of recording on-site instructions and as a general record of environmental issues until buffers and rehabilitated areas are established. A photographic record of the site will also be kept for visual reference purposes. The Site Control Register will consist of the following sections:

1. The **Site Control Sheet** in which the findings from weekly site monitoring activities are consolidated until buffers and rehabilitated areas are established
2. The **Environmental Site Instruction Section** will be used to record all general site instructions relating to the protection of the environment and instructions issued by the site manager or ECO for the purpose of facilitating the issuing of the site instruction by the Owner until buffers and rehabilitated areas are established.
3. The **Incidents Reporting Section** will be used to record all incidents pertaining to environmental issues onsite as well as remedial actions steps that were or need to be taken until buffers and rehabilitated areas are established.
4. The **Complaints Register** will be used to record all complaints received and responses thereto until buffers and rehabilitated areas are established.

This register must always remain on site and is to be made available for monitoring purposes by the DEA&DP/ local authority as required.

c) Erosion Control

Care must be taken to prevent erosion of soils within the cleared 1 ha area, access road and nearby natural areas. Should any erosion be detected, the ECO or site manager must identify the cause of such erosion and ensure that the most appropriate method of mitigation or stabilisation is employed as soon as possible.

d) Dust Control

The site manager shall take appropriate measures, to the satisfaction of the ECO to minimise the generation of dust nuisance. Watering of roads and exposed soils if required and maintaining a speed limit of 20km/h.

e) Emergency

All accidents and emergency situations are to be reported to the site manager, Landowner and ECO and full details included in environmental audits. Emergency contact numbers for fire department to be kept on site.

f) Fire:

In the case of a fire occurring on site, the site manager, and safety steward, landowner and adjacent landowners are to be notified immediately. If localised and posing a threat to humans, infrastructure or farming operations, effort should be made to extinguish the fire immediately, and if required, the assistance of the local fire department should be sought by the safety steward.

g) First Aid:

The site manager must provide and maintain a suitable first aid kit on site, with a member of staff suitably qualified in first aid on site during working hours, in accordance with the Occupational Health and Safety Act.

h) Vegetation Management

Alien invasive vegetation is imported/ non-indigenous plant material that can out-compete indigenous vegetation and must be removed from the site on an ongoing basis to conserve indigenous vegetation. Furthermore, alien invasive vegetation poses a fire risk as it increases the fuel load and fire intensity and may result in frequent and intense fires.

Clearing of alien invasive vegetation from the site must be undertaken as outlined in Section 2.1 of this document with regular maintenance clearing undertaken throughout the operational phase of the development.

SECTION 7: MONITORING AND COMPLIANCE

7.1. Monitoring

The monitoring of works on site is necessary to demonstrate compliance with the specifications of the EMPr and to allow for problems or issues of non-conformance to be identified and appropriate corrective measures to minimize environmental damage to be implemented.

Monitoring should include daily visual checks by the site manager, checks on requirements for site activities by the ECO, as well as a review of site documentation. Monitoring should include photographic records. The ECO shall complete the performance record at the end of each table in section 7.2 of this document, as a record of transgressions or problems experienced on site, and how they were dealt with. Monitoring of the activities onsite by the ECO should take place 6-monthly (until buffers and rehabilitated areas are established) and an official report thereof must be prepared. These monitoring reports must be safely stored and made available to the auditor as well as the environmental competent authority (DEA&DP).

7.2. Environmental Control Sheets

a. Communication

TASK	MITIGATION AND ENVIRONMENTAL CONTROLS	ACTION
Site Control Register	• To be updated on a regular basis	ECO/Site Manager
Environmental Awareness education	• Each contractor team and all employees involved with the composting activity are to attend a training session prior to commencing work on site. • Record of members attending training sessions to be kept and updated regularly.	ECO/Site Manager
Method Statements	• Method statements to indicate What, How, Where and When activities are to take place. • Method statements for each relevant activity to be submitted to ECO prior to the start of that activity on site. • Work is not to commence until method statement approved by ECO and Site Manager if necessary.	Contractor/Site Manager
COMMENTS/ UPDATE		

RECORD OF PERFORMANCE

Acceptable		Details of Transgression	Responsible Party	Action Taken	Date
Yes	**No**				

7.3. Review of the EMPr

The EMPr will be reviewed by the ECO on an ongoing basis. Based on observations during site inspections and issues raised at site meetings, the ECO will determine whether any procedures require modification to improve the efficiency and applicability of the EMPr on site. The EMPr must be updated should any significant changes occur to the operations with regard to the composting site.

Any such changes or updates will be registered in the ECO's 6-monthly record, as well as being included as an annexure to this document. Annexures of this nature must be distributed to all relevant parties on site.

7.4. Environmental Audits

A suitably qualified Environmental Auditor is to be appointed, at the expense of the Landowner, to undertake audits of compliance with the EMPr. This should happen 6 months after Environmental Authorization and 6 months after buffers and rehabilitated areas are established.

Objectives should be to audit compliances with the key components of the EMPr, to identify main areas requiring attention and recommend priority actions. The audit should cover a cross section of issues, including implementation of environmental controls, environmental management, and environmental monitoring.

Results of the audits should inform changes required to the specifications of the EMPr or additional specifications to deal with any environmental issues which arise on site and have not been dealt with in the current document.

The national, provincial and local authorities must be given access to audit or inspect the facility if so requested.

7.5. Record Keeping

The Landowner should keep records of the following:

- Monitoring reports (ECO Reports)
- A site control register:
    - The control register must outline monitoring undertaken by the site manager.
    - It is recommended that the register is in a digital format as this will ensure that all records are easily accessible for internal and external auditing requirements.
    - An incident and complaints register must form part of the overall site control register.
- Reviews of the EMPr,
- Amendments to the EMPr, EA or GA/ WULA

Records should be kept and must be made available for review on request, based on adequate motivation. Minutes of meetings on site must reflect environmental queries, complaints, actions agreed upon, dates of eventual compliance and must form part of the official environmental site record.

In addition to the summary report, the ECO shall keep photographic records of all site visits and an ad hoc record of incidents or events on site, especially in the case of transgressions from EMPr specifications. Such photographs are to be taken with an in-camera dating facility.

7.6. Incident reporting

Environmental incident reporting is a vital part of communication. Employees are required to report all environmental related problems, incidents, and pollution, so that the appropriate mitigation actions can be implemented timeously. See Appendix B for a template that can be used for incident reporting

The landowner and the site manager shall investigate the incident and record the following information:

- How the incident happened,
- The reasons the incident happened,
- How rehabilitation or clean up needs to take place,
- The nature of the impact that occurred,
- The type of work, process or equipment involved; and
- Recommendations to avoid future such incidents and/or occurrences.

The landowner shall also:

- Inform the ECO of all incidents that were reported, and
- consult with the ECO for recommendations on actions to be taken or implemented where appropriate (e.g., clean-ups).

SECTION 8: TRANSGRESSIONS IN TERMS OF EMPR

The Landowner must comply with the requirements of this EMPr on an on-going basis and any failure on his part to do so will entitle the relevant competent authorities to **take corrective action against the transgressor**.

In the event that any activities are undertaken outside the scope of the adopted EMPr requirements, in terms of the action outlined within the given method statement, the responsible person(s) will potentially be subject to Section 24(F) of NEMA, and that appropriate enforcement and compliance requirements will follow by the competent authority.

Transgressions relate to actions by the landowner and operating team members whereby damage or harm is inflicted upon the environment or any feature thereof and where any of the conditions or specifications of the EMPr/ EA/ GA are infringed upon.

In the instance of environmental damage, the damage is, where possible, to be repaired and rehabilitated using appropriate measures, as specified and undertaken by appropriate specialists, for the account of the responsible party.

Issues of non-compliance noted by the ECO are to be communicated to the site manager, who holds the responsibility of ensuring that the relevant parties are made aware of the lack of compliance with EMPr specifications, and that appropriate action is taken to rectify the situation. Issues of non-compliance must be reported in the required ECO site visit report. The ECO will advise on appropriate corrective actions when necessary.

APPENDIX A: INCIDENT REPORT TEMPLATE

Environmental Incident Report

Date:	**File reference number:**
Name:	
Exact location of incident:	

Section 1: Description of incident

Section 2: Remedial action required

Section 3: Relevant Documentation

Section 4: Steps to prevent recurrence

Section 5: Signatures

Site manager:	Date: .....
ECO:	Date: .....
Landowner:	Date: .....

APPENDIX B: CV OF EAP