LAYER HOUSES ON THE FARM CHEZ NOUS NO 1775, KOPANONG MUNICIPAL AREA, FREE STATE PROVINCE

ENVIRONMENTAL MANAGEMENT PROGRAMME

JUNE 2026

REFERENCE NUMBER	***24G/40(ii)/25/10***

PREPARED FOR:

Tsiyon Boerdery (Pty) Ltd
Contact Person: Mr Neil Smook
19 Wildepruim Ave
Woodland Hills
Bloemfontein
9301
Cell: 082 379 3794
E-mail: neil.smook@polyoak.co.za

PREPARED BY:

Greenmined Environmental (Pty) Ltd
Contact Person: Ms C Fouché
106 Baker Square, Block 1
De Beers Avenue, Paardevlei
Somerset West
7129
Tel: 021 851 2673
Cell: 082 811 8514
E -mail: Christine.f@greenmined.co.za

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LIST OF ABBREVIATIONS

Act 36	Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947)
ADA	Animal Diseases Act, 1984 (Act No 35 of 1984)
APA	Animal Protection Act, 1962 (Act No 71 of 1962)
CARA	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)
DARD	Department of Agriculture and Rural Development
DESTEA	Department of Economic Small Business Development, Transport and Environmental Affairs
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EAPASA	Environmental Assessment Practitioners Association of South Africa
ECO	Environmental Control Officer
EIA Regulations	Environmental Impact Assessment Regulations, 2014 (as amended)
EMPR	Environmental Management Programme
GNR	Government Notice
GPS	Global Positioning System
LIA	Livestock Improvement Act, 1998 (Act No. 25 of 1998)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Control Act, 2004 (Act No. 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NRTA	National Road Traffic Act, 1996 (Act No. 93 of 1996)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
OHSA	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
PCO	Pest Control Officer
SAHRA	South African Heritage Resources Agency

PROJECT INFORMATION

PROJECT TITLE:	Rectification Application for Layer Houses on the farm Chez Nous No 1775
APPLICANT:	Tsiyon Boerdery (Pty) Ltd
ENVIRONMENTAL CONSULTANT:	Greenmined Environmental (Pty) Ltd
REPORT REFERENCE NUMBER:	24G/40(II)/25/10
PROPERTY DESCRIPTION:	Farm Chez Nous No 1775
REPORT DATE:	June 2026

A. INTRODUCTION

Farm Chez Nous No. 1775 previously operated a single layer house accommodating fewer than 5 000 hens, which did not trigger listed activities under the EIA Regulations. The facility has since been expanded to include two layer houses with a combined capacity of 30 000 laying hens and therefore requires Environmental Authorization. The Applicant, Tsiyon Boerdery (Pty) Ltd, is seeking rectification for the commencement of this listed activity.

(GNR 982 APPENDIX 4 SECTION 1(1)(a))

B. DECLARATION OF INDEPENDENCE BY EAP

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) the Applicant must appoint an independent Environmental Assessment Practitioner (EAP) to undertake any activities regulated in terms of the Act. Tsiyon Boerdery (Pty) Ltd (hereafter referred to as the "Applicant") appointed Greenmined Environmental (Pty) Ltd (hereafter referred to as "Greenmined") to undertake the application for environmental authorisation in terms of Section 24G of NEMA. Greenmined has no vested interest in Tsiyon Boerdery (Pty) Ltd or the project and declares its independence as required by the Environmental Impact Assessment Regulations, 2014 (as amended) (EIA Regulations).

a) DETAILS OF THE EAP

Name of the Practitioner:	Ms Christine Fouché (Senior Environmental Specialist)
Tel No.:	021 851 2673
Cell No:	082 811 8514
E-mail address:	christine.f@greenmined.co.za

b) EXPERTISE OF THE EAP

Ms. Fouché has a Diploma in Nature Conservation and a B.Sc. in Botany and Zoology with twenty one years' experience in doing Environmental Impact Assessments related projects in South Africa. Ms. Fouche is a registered Environmental Assessment Practitioner (registration no: 2019/1003) with EAPASA (Environmental Assessment Practitioners Association of South Africa). See Basic Assessment Report Appendix H for proof of experience.

(GNR 982 APPENDIX 4 SECTION 1(1)(b))

C. DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

a) LOCATION OF THE ACTIVITY

Table 1: Location of the activity.

Farm Name	Chez Nous No 1775	
Footprint (Ha)	0.76 ha	
Magisterial District	Xhariep Municipal District	
Distance and direction from the nearest town	The farm Chez Nous No 1775 is ±46 km south-west of Bloemfontein in the Free State Province.	
21 digit Surveyor General Code for each farm portion	F00300000000177500000	
Site Coordinates	A 29°27'54.00" S	25°59'39.58" E
	B 29°27'53.98" S	25°59'43.20" E
	C 29°27'56.79" S	25°59'42.57" E
	D 29°27'56.29" S	25°59'39.08" E

b) DESCRIPTION OF THE ACTIVITY

1. PROJECT DESCRIPTION

A detailed description of the project is provided in *Section A, 1. Project Description* of the Basic Assessment Report (Main Report) for this application.

(GNR 982 APPENDIX 4 SECTION 1(1)(c))

c) COMPOSITE MAP

The Locality Map, Site Layout Plan, and Sensitivity Map to which this application relates is attached as Appendix A to the Basic Assessment Report (BAR). Also refer to the Facility Illustration attached as Appendix C.

D. POLICY AND LEGISLATIVE CONTEXT

a) APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT

Table 2: Policy and Legislative Context.

Title of legislation, policy or guideline	Applicability to the project	Administering authority
National Environmental Management Act, 1998 (Act No 107 of 1998) and the EIA Regulations, 2014 (as amended) (NEMA)	The expansion of the existing layer poultry facility triggers Listing Notice 1, Activity 40 of the NEMA EIA Regulations, which relates to the expansion and/or development of facilities for the concentration of poultry above the prescribed thresholds. The activity is therefore subject to a Basic Assessment process in terms of the EIA Regulations. As the activity commenced without prior environmental authorisation, the application is being processed as a Section 24G rectification application under NEMA.	Department of Small Business Development, Tourism and Environmental Affairs – Free State (DESTEA)
National Water Act, 1998 (Act No 36 of 1998) (NWA)	The Act regulates the protection, use, development, conservation, management and control of water resources. The operation of the poultry facility involves water abstraction, storage, and the management of stormwater to prevent pollution of water resources. The Applicant must ensure that no water uses occur without lawful authorisation and that measures are implemented to prevent contamination of surface and groundwater resources.	Department of Water and Sanitation (DWS)
Animal Protection Act, 1962 (Act No 71 of 1962) (APA)	This Act promotes the humane treatment of animals and prohibits cruelty. The operation of the layer facility must ensure appropriate housing, feeding, handling and care of poultry in accordance with animal welfare standards.	Society for the Prevention of Cruelty to Animals (SPCA)
Livestock Improvement Act, 1998 (Act No 25 of 1998) (LIA)	The Act regulates the breeding, identification and improvement of livestock in South Africa. The facility must comply with applicable provisions relating to the management and breeding of poultry where relevant.	Department of Agriculture and Rural Development – Free State (DARD)
Animal Diseases Act, 1984 (Act No 35 of 1984) (ADA)	This Act provides for the control of animal diseases and parasites. The facility must implement appropriate biosecurity measures, monitoring, and disease control practices to prevent the outbreak and spread of notifiable animal diseases.	Department of Agriculture and Rural Development – Free State (DARD)

Title of legislation, policy or guideline	Applicability to the project	Administering authority
Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947) (Act 36)	The Act regulates the registration, sale and use of animal feeds, agricultural remedies and stock remedies. Feed used at the facility must comply with regulatory standards, and any veterinary or agricultural remedies must be registered and used in accordance with prescribed requirements.	Department of Agriculture and Rural Development – Free State (DARD)
Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983) (CARA)	This Act promotes the conservation of soil, water resources and vegetation. The Applicant must implement appropriate soil conservation and stormwater management measures to prevent erosion, runoff, and land degradation associated with the operation of the facility.	Department of Agriculture and Rural Development – Free State (DARD)
Occupational Health and Safety Act, 1993 (Act No 85 of 1993) (as amended) (OHSA)	The Act provides for the health and safety of employees in the workplace. The Applicant must ensure that working conditions within the poultry houses and associated facilities comply with occupational health and safety standards, including ventilation, hygiene, handling of equipment, and safe storage of materials.	Department of Employment and Labour.
National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)	The Section 24G rectification application triggered Section 38 of the NHRA and required specialist heritage investigations, including a Heritage Impact Assessment (HIA) and Palaeontological Impact Assessment (PIA), to assess the impact of the existing poultry facility expansion on heritage resources.	South African Heritage Resources Agency.

(APPENDIX 4 SECTION 1(1)(d))

E. DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

a) IMPACTS AND RISKS ASSOCIATED WITH THE PROJECT

The table below presents the potential positive and negative environmental impacts associated with this project, identified for the operational and decommissioning phases. This EMPR does not elaborate on the planning-, site establishment- and or construction phases as this is an operational facility and these phases are no longer applicable. Also refer to BAR Appendix F for the Environmental Impact Statement.

The following table provides a summary of the relevant impacts that may arise during the operational and/or decommissioning phases of the project. Table 4 lists the project-specific mitigation and management measures to be implemented on site. For details on compliance monitoring and performance assessment, please refer to the section titled *Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including headings (l)–(m)* as required by Appendix 4 of the EIA Regulations (GNR 982 of 2014) (as amended).

Table 3: Positive and negative impacts associated with the project.

ACTIVITY	TYPE	POTENTIAL IMPACT
OPERATIONAL PHASE		
Θ Expansion of the existing layer facility within the established farmyard footprint (±0.76 ha). Θ Compact east-west aligned layout of two parallel layer houses within a consolidated footprint. Θ Use of automated feeding, watering, ventilation, manure removal and egg collection systems.	DIRECT IMPACTS	Θ Increased water demand associated with poultry production. Θ Generation of manure requiring management and disposal or reuse. Θ Potential odour emissions from poultry houses and manure storage areas. Θ Operational noise from ventilation fans, generator and loading activities. Θ Generation of general operational waste (feed bags, packaging, mortalities). Θ Risk to poultry health during power outages if ventilation fails. Θ Potential impact on heritage resources. Θ Job creation and improved employment stability (Positive Impact).
	INDIRECT IMPACTS	Θ Potential attraction of pests such as rodents, flies and scavenger birds. Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Increased local traffic associated with feed delivery and egg distribution. Θ Potential spread of alien invasive plant species in denuded areas.

ACTIVITY	TYPE	POTENTIAL IMPACT
OPERATIONAL PHASE		
		Θ Night-time lighting effects, if unmanaged. Θ Potential spread of disease if hygiene and biosecurity measures are not maintained. Θ Strengthening of local agricultural value chains (feed, transport, egg supply) (Positive Impact).
	CUMULATIVE IMPACTS	Θ Cumulative odour and traffic impacts in combination with other agricultural activities in the area. Θ Incremental pressure on local water resources. Θ Contribution to local food security (Positive Impact). Θ Increased productivity and economic activity (Positive Impact).

ACTIVITY	TYPE	POTENTIAL IMPACT
DECOMMISSIONING PHASE		
Θ Expansion of the existing layer facility within the established farmyard footprint (±0.76 ha). Θ Compact east-west aligned layout of two parallel layer houses within a consolidated footprint. Θ Use of automated feeding, watering, ventilation, manure removal and egg collection systems.	DIRECT IMPACTS	Θ Temporary disturbance of soil during dismantling of structures. Θ Generation of demolition waste. Θ Noise and dust associated with removal activities. Θ Potential impact on archaeological resources.
	INDIRECT IMPACTS	Θ Temporary increase in heavy vehicle movement during removal of infrastructure.
	CUMULATIVE IMPACTS	Θ Loss of employment opportunities. Θ Reduction of operational impacts post-closure (Positive Impact).

b) IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES

Table 4: Impacts to be mitigated in their respective phases.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
Θ Increased water demand associated with poultry production. Θ Incremental pressure on local water resources.	±0.76 ha	**WATER USE MANAGEMENT MEASURES** **1. Efficient Watering Systems** Θ The poultry houses must utilise automated nipple drinking systems to minimise water spillage. Θ Drinking lines must be fitted with flow-control mechanisms to regulate supply according to demand. Θ Open-trough watering systems may not be used. **2. Water-Efficient Climate Control** Θ The evaporative cooling systems (wet screens) must operate on a closed-loop recirculation system. Θ Cooling water must continuously be recycled, with only evaporative losses replaced. Θ The system must daily be monitored to ensure efficient operation and to prevent excessive water consumption. **3. Leak Detection and Preventative Maintenance** Θ All pipelines, valves, drinker systems, storage tanks, and cooling system components must be inspected at least weekly.	Management of water related matters must be in accordance with the: Θ NWA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Any leaks or system malfunctions must be repaired immediately upon detection. Θ A preventative maintenance schedule must be implemented, and records of inspections and repairs must be kept on site. **4. Controlled Cleaning Practices** Θ Poultry houses must be sterilised after each production cycle (approximately every 18 months). Θ High-pressure, low-volume cleaning equipment must be used to minimise water consumption. Θ Water use during cleaning must be monitored to prevent excessive use. **5. Water Storage and Abstraction Control** Θ Water abstraction must be managed through on-site storage tanks to regulate supply and reduce peak abstraction rates. Θ Stored water must be used to balance daily demand and prevent unnecessary over-abstraction from the source. Θ Water use volumes must be monitored to ensure compliance with authorised water use allowances.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
Θ Generation of manure requiring management and disposal or reuse. Θ Potential odour emissions from poultry houses and manure storage areas. Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Cumulative odour and traffic impacts in combination with other agricultural activities in the area.	±0.76 ha	**MANURE MANAGEMENT** **1. Manure Removal and Handling** Θ Each layer house must be fitted with an automated manure belt removal system to ensure routine removal of manure and to prevent prolonged accumulation. Θ The manure removal system must operate at intervals sufficient to minimise ammonia build-up and odour generation. Θ Manure must be conveyed to a designated collection area located within the approved footprint. Θ Manure must not be stored on-site for longer than 5–6 days unless otherwise authorised. **2. Off-Site Beneficial Use** Θ All manure generated on-site must be transported to agricultural fields for beneficial use as organic fertiliser. Θ Manure must be applied in accordance with agronomic requirements and crop nutrient demands. Θ Application rates must be managed to prevent over-application of nitrogen and phosphorus. Θ Records of manure volumes removed and land application areas must be maintained for monitoring and compliance purposes. **3. Timing of Land Application**	Management of manure must be in accordance with the: Θ Act, 36 Θ ADA, 1984 Θ APA, 1962 Θ CARA, 1983 Θ LIA, 1998 Θ NEMA, 1998 Θ NWA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Manure must not be applied during periods of heavy rainfall or when soils are waterlogged. Θ Land application must be scheduled to minimise the risk of nutrient runoff or leaching to groundwater and adjacent watercourses. **4. Inspection and Maintenance** Θ The manure removal system, collection areas, and loading areas must be inspected at least weekly. Θ Any spillage, leakage, or malfunction must be rectified immediately. Θ Inspection and maintenance records must be kept on site.		
Θ Generation of manure requiring management and disposal or reuse. Θ Potential odour emissions from poultry houses and manure storage areas. Θ Risk of soil or groundwater contamination if manure or	±0.76	**STORMWATER MANAGEMENT** **1. Clean and Dirty Water Separation** Θ A clean and dirty water separation system must be implemented at the manure stockpile area. Θ Clean stormwater must be diverted away from the manure stockpile footprint. Θ An upslope cut-off drain or diversion berm must be constructed to intercept and divert uncontaminated stormwater to a stable discharge point. Θ A downslope containment berm must be constructed to prevent runoff from flowing toward the Tierpoort River.	Runoff water must be managed in accordance with the: Θ CARA, 1983 Θ NEMA, 1998 Θ NWA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
wastewater is mismanaged. Θ Incremental pressure on local water resources.		**2. Dirty Water Management** Θ All runoff originating from the manure stockpile and loading area must be directed to a purpose-designed settling pond or equivalent containment structure. Θ The settling pond must allow for sedimentation of suspended solids and reduction of nutrient loads prior to reuse or controlled discharge. Θ The settling/containment structure must be appropriately sized for the contributing catchment area. Θ The structure must include adequate freeboard, erosion protection, and a controlled outlet to prevent overtopping and uncontrolled discharge. Θ Where required based on soil permeability and groundwater risk, the settling pond and/or manure stockpile pad must be lined (e.g., compacted clay or geomembrane) to reduce seepage. **3. Location and Setbacks** Θ A minimum setback distance of 120 m must be maintained between the manure stockpile area and the Tierpoort River and farm borehole, unless otherwise authorised. Θ The manure stockpile area must be established on a compacted, stable surface graded toward the dirty-water collection system. Θ Vegetated buffer areas between the stockpile area and the Tierpoort River must be maintained and protected.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		4. Stockpile Management Θ Uncontrolled runoff pathways from the stockpile area must not be permitted. **5. Inspection, Maintenance and Monitoring** Θ Stormwater infrastructure (diversion drains, berms, settling pond) must be inspected regularly (minimum monthly) and after significant rainfall events. Θ Accumulated sediment within the settling pond must be removed as required to maintain operational capacity. Θ No discharge of untreated runoff from the manure stockpile area to the Tierpoort River or associated drainage lines may occur. Θ Monitoring and maintenance records must be kept on site and made available upon request by the competent authority.		
Θ Operational noise from ventilation fans, generator and loading activities.	±0.76 ha	**NOISE MANAGEMENT** **1. Ventilation Systems** Θ Mechanical ventilation fans installed within the layer houses must be maintained in proper working condition to prevent abnormal noise associated with mechanical failure, imbalance, or wear. Θ Ventilation fans must be inspected at least monthly. Θ Any defective, worn, or imbalanced components contributing to excessive noise must be repaired or replaced immediately.	Noise generation on site must be managed in accordance with the: Θ LIA, 1998 Θ NEM:AQA, 2004 Regulation 6(1)	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Maintenance records must be kept on site. **2. Standby Generator Management** Θ The standby generator must be housed within a designated enclosed room to provide acoustic attenuation during operation. Θ The enclosure must be maintained in good condition. Θ Where practicable, generator maintenance testing must be undertaken during daylight hours. **3. Loading and Operational Activities** Θ Loading and offloading of eggs, feed, hens, and related materials must occur during daylight hours only. Θ No routine night-time loading or offloading activities may be undertaken. Θ Vehicles and equipment associated with loading and transport must be maintained in good working condition, including exhaust and silencing systems. Θ Unnecessary idling of delivery and collection vehicles within the facility yard must be avoided. **4. Complaint Monitoring and Response** Θ Any noise-related complaints received must be recorded in a complaints register. Θ All complaints must be investigated promptly. Θ Corrective measures must be implemented where necessary to address verified noise impacts.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Records of complaints and corrective actions must be kept on site and made available upon request by the competent authority.		
Θ Generation of general operational waste (feed bags, packaging, mortalities). Θ Potential attraction of pests such as rodents, flies and scavenger birds. Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Cumulative odour and traffic impacts in combination with other agricultural	±0.76 ha	**WASTE MANAGEMENT** **1. Separation and Storage of Waste** Θ Waste streams must be separated at source into general (non-biodegradable) and organic waste. Θ Designated refuse bins must be provided within the operational area. Θ All waste storage containers must remain covered to prevent littering, wind dispersion, odour generation, and vermin access. Θ Waste storage areas must be maintained in a clean and orderly condition at all times. **2. Management of General Waste** Θ Non-biodegradable waste (e.g., plastic packaging, paper, cardboard) must be collected and stored temporarily in designated containers. Θ General waste must be removed from the facility at least weekly or as required to prevent accumulation. Θ General waste must be transported to a lawful waste management facility (e.g., Bloemfontein landfill site). Θ Records of waste removal and disposal must be maintained on site.	All waste related activities must be managed in accordance with the: Θ NEMA, 1998 Θ NEM:WA, 2008 Θ NWA, 1998 Θ Integrated Pest Control Management Program (EMPr Appendix B)	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
activities in the area. Θ Incremental pressure on local water resources.		**3. Management of Poultry Mortalities** **3.1 General Requirements** Θ Poultry mortalities must be identified and removed from the houses immediately. Θ The cause of mortalities must be investigated where required in accordance with biosecurity protocols. Θ Workers must receive training in the correct handling of sick and dead animals. Θ Mortality management must comply with the National Environmental Management: Waste Act, the Animal Diseases Act, and any directives issued by the competent authority. Θ On-site incineration of routine mortalities must be discontinued and replaced with a controlled on-site composting system. **3.2 Controlled On-Site Composting System (Low-Volume)** **<u>Location and Setbacks</u>** Θ A dedicated composting area must be established outside drainage lines and outside the riparian buffer of the Tierpoort River. Θ The composting area must be located at least 120 m from the Tierpoort River, and boreholes. Θ The site must be situated on stable, well-drained ground and outside flood-prone areas.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Engineered Base and Leachate Control Θ The composting system must be established on a compacted, low-permeability surface (e.g., compacted clay or concrete slab). Θ The composting area must be graded to prevent runoff from leaving the footprint. Θ Where required, containment measures must be installed to prevent leachate migration. **Composting Management** Θ Carcasses must be layered with an adequate carbon source (e.g., dry litter, straw, wood chips) to maintain an appropriate carbon-to-nitrogen ratio. Θ Carcasses must be completely covered with carbon material to prevent odour and scavenger access. Θ Compost piles must be managed to maintain aerobic conditions and appropriate internal temperatures to ensure effective pathogen reduction. Θ The composting area must be fenced or secured to prevent access by domestic animals, wildlife, and vermin. Θ The composting system must be monitored for odour generation and corrective action taken where necessary. Θ Compost must be allowed to mature fully prior to application on agricultural land. Θ Mature compost may be applied in accordance with agronomic nutrient management principles.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Record Keeping Θ Records of mortalities and composting volumes must be maintained for monitoring and compliance purposes. **3.3 Unusual Mortality Rates, Suspected Disease Outbreak, or Epidemic Conditions (High Volume)** Θ A registered veterinarian must be notified immediately in the event of abnormal mortality rates or suspected disease outbreak. Θ Routine composting must be suspended if advised by the attending veterinarian or competent authority. Θ Where mortality volumes exceed the capacity of the composting system or where directed by the veterinarian, a registered rendering service must be commissioned to collect and dispose of carcasses. Θ Carcasses must be managed and disposed of in accordance with veterinary recommendations and applicable legislation, including biosecurity and animal health regulations. Θ Pending removal by a renderer, carcasses must be stored in a secure, leak-proof and covered area to prevent disease spread, odour, or scavenger access. Θ Enhanced biosecurity protocols must be implemented during outbreak conditions, including restricted access, disinfection measures, and controlled movement of personnel and equipment. Θ Areas associated with the outbreak must be cleaned and disinfected in accordance with veterinary guidance.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
		OPERATIONAL PHASE		
		4. Management of Broken or Rejected Eggs Θ Broken or rejected eggs must be collected separately from general waste. Θ Eggs must be stored appropriately (e.g., frozen) to prevent odour and vermin attraction. Θ Rejected eggs can be sold or transferred to a registered client for further processing. Θ Records of volumes removed must be maintained. **5. Sewerage Management** Θ Domestic effluent from employee ablution facilities must be directed to the existing on-site septic tank system. Θ No domestic effluent may be discharged to drainage lines or surface water resources. Θ The septic tank and French drain system must be inspected at least monthly. Θ Any indication of malfunction (e.g., odour, pooling, slow drainage, overflow) must trigger immediate inspection and corrective action. Θ The septic system must be maintained to ensure adequate capacity and prevent environmental contamination. **6. Wash Water Management** Θ Wash water generated during house cleaning must be managed to prevent pollution of soil and water resources.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Floor gradients and/or drainage channels must direct wash water toward a designated collection point. Θ Wash water must be conveyed to a lined or appropriately compacted settling pond. Θ The settling pond must prevent uncontrolled seepage and overtopping. Θ Clarified effluent from the settling pond may be applied to designated agricultural land. Θ Application rates must be controlled to: o Prevent surface runoff, o Avoid ponding, o Prevent over-saturation of soils, o Minimise nutrient leaching. **7. Housekeeping and Monitoring** Θ Good housekeeping practices must be maintained throughout the facility. Θ Waste must not be allowed to accumulate in operational areas. Θ Monitoring records for waste removal, composting, and effluent management must be kept on site and made available to the competent authority upon request.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
Θ Risk to poultry health during power outages if ventilation fails.	±0.76 ha	**ENERGY SECURITY AND VENTILATION MANAGEMENT** **1. Standby Power Supply** Θ The facility must maintain a functional standby generator to provide emergency power during electricity supply interruptions. Θ The standby generator must supply backup power to all critical systems, including ventilation fans and essential operational equipment. Θ The generator must be capable of operating for a sufficient duration to safeguard poultry health during outages. **2. Generator Inspection and Maintenance** Θ The standby generator must be inspected, tested, and maintained on a routine basis to ensure operational readiness. Θ Scheduled testing must be undertaken to verify functionality and fuel availability. Θ Records of inspections, testing, maintenance, and fuel checks must be kept on site. **3. Solar Power Integration** Θ A solar power system must be considered, and if installed maintained in accordance with applicable electrical and safety standards. Θ The solar installation (if installed) must supplement grid electricity supply to enhance energy security and reduce reliance on the grid.	Matters regarding animal health must be managed in accordance with the: Θ APA, 1962 Θ LIA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ The system must be maintained in good working order to reduce the likelihood and severity of ventilation interruptions during power outages. **4. Environmental Monitoring and Emergency Response** Θ Temperature and airflow within the layer houses must be continuously monitored to detect deviations from acceptable operating ranges. Θ Operational staff must be trained to respond to power failures and ventilation system interruptions. Θ In the event of a power outage, the standby generator must be activated without delay. Θ Ventilation performance must be monitored during outage conditions to ensure adequate airflow and temperature control. Θ Any malfunction affecting poultry welfare must be addressed immediately.		
Θ Increased local traffic associated with feed delivery and egg distribution. Θ Cumulative odour and traffic impacts in combination with	±0.76 ha	**TRAFFIC MANAGEMENT** **1. Scheduling of Deliveries and Collections** Θ Feed deliveries, egg collection, and other transport-related activities must be scheduled during daylight hours. Θ No routine night-time delivery or collection activities may occur unless required under exceptional circumstances.	Traffic impacts must be managed in accordance with the: Θ National Dust Control Regulations, GNR 827 Θ NEM:AQA, 2004 Θ NRTA, 1996	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
other agricultural activities in the area.		**2. Access Control** Θ All delivery and collection vehicles must utilise established and designated access roads to and from the facility. Θ No informal or unauthorised access routes may be created or used. Θ Access roads must be maintained in a safe and functional condition. **3. Driver Conduct and Road Safety** Θ All drivers accessing the facility must comply with applicable speed limits on farm roads. Θ Drivers must adhere to safe driving practices at all times. **4. Vehicle Roadworthiness** Θ All transport vehicles servicing the facility must be roadworthy and maintained in good working condition. Θ Vehicles must not emit excessive noise, exhaust emissions, or fluid leaks. Θ Any vehicle found to be leaking fluids on site must be addressed immediately to prevent soil contamination. **5. Dust Management** Θ Access roads must be monitored for excessive dust generation associated with operational traffic. Θ Where noticeable dust impacts occur, appropriate dust suppression measures must be implemented.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Dust control measures may include road maintenance, grading, application of water, or other suitable suppression methods.		
Θ Potential spread of alien invasive plant species in denuded areas.	±0.76 ha	**GROUNDCOVER AND VEGETATION MANAGEMENT** **1. Routine Vegetation Control** Θ Pioneer and nuisance vegetation must be removed on a routine basis through mechanical clearing and/or hand-pulling. Θ Vegetation regrowth must be slashed or mowed periodically to maintain low vegetation height. Θ Vegetation control must aim to prevent excessive biomass accumulation and reduce fire risk. Θ Cleared vegetation must be managed appropriately to prevent re-establishment or spread. **2. Alien and Invasive Species Management** Θ Alien and invasive plant species must be identified and controlled in accordance with the National Environmental Management: Biodiversity Act (NEM:BA) Alien and Invasive Species Regulations. Θ Where listed invasive species are identified, appropriate control measures must be implemented. Θ Follow-up clearing must be undertaken to prevent re-infestation. Θ Records of invasive species control measures must be kept where required.	On-site vegetation must be managed in accordance with the: Θ CARA1983 Θ NEM:BA 2004 Θ Alien and Invasive Species Regulations, 2014 (as amended)	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		3. Prevention of Vegetation Encroachment Θ Vegetation-free zones must be maintained immediately adjacent to the poultry houses. Θ These buffer zones must reduce fire risk, pest harbourage, and potential disease vectors. Θ Pathways, service areas, and operational working surfaces must be kept clear of dense vegetation at all times. **4. Soil Stabilisation and Erosion Control** Θ Compacted and disturbed areas must be monitored for signs of erosion. Θ Where erosion is identified, stabilisation measures must be implemented. Θ Stabilisation measures may include contouring, light compaction, gravel placement in high-traffic areas, or other suitable erosion control interventions. Θ Stormwater flow paths must not be altered in a manner that causes erosion. **5. Operational Hygiene and Biosecurity** Θ Vegetation control must form part of the facility's broader biosecurity management plan. Θ Groundcover management practices must support pest control, disease prevention, and overall flock health.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Vegetation control measures must not compromise environmental compliance or create secondary impacts (e.g., erosion or runoff).		
Θ Night-time lighting effects, if unmanaged.	±0.76 ha	**LIGHTING MANAGEMENT** **1. External Lighting Control** Θ External lighting must be limited to areas where illumination is required for safety and essential operational activities. Θ No unnecessary lighting may be installed within the facility. Θ Lights must be switched off when not required. Θ Floodlighting and high-mast lighting may not be utilised on site unless otherwise authorised. **2. Directional and Shielded Fixtures** Θ All external lighting fixtures must be downward-facing and fitted with appropriate shielding. Θ Lighting must be designed to prevent horizontal light spill beyond the facility boundary. **3. Control of Light Intensity** Θ Lighting intensity must be maintained at the lowest level practicable to ensure safe visibility. Θ Lighting must not cause disturbance to adjacent properties or surrounding land uses.	Matters regarding night-time lighting must be managed in accordance with the: Θ APA, 1962 Θ CARA, 1983 Θ LIA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		4. Energy Efficiency Θ Energy-efficient lighting systems (e.g., LED technology) must be utilised to reduce energy consumption and overall light output. Θ Lighting systems must be maintained to ensure continued efficiency and proper functioning. **5. Internal Poultry House Lighting** Θ Internal lighting within the poultry houses must be managed in accordance with poultry husbandry requirements. Θ Appropriate dark periods must be maintained during night-time hours to ensure adequate rest for the birds. Θ Lighting cycles must support animal welfare and operational biosecurity requirements.		
Θ Potential spread of disease if hygiene and biosecurity measures are not maintained.	±0.76 ha	**BIOSECURITY MANAGEMENT** **1. Access Control and Perimeter Security** Θ The facility must remain enclosed by perimeter fencing to prevent unauthorised access. Θ Entry to poultry houses and operational areas must be strictly controlled. Θ Access points must remain secured when not in use.	Matters regarding biosecurity must be managed in accordance with the: Θ ADA, 1984 Θ APA, 1962 Θ CARA, 1983 Θ LIA, 1998 Θ NEM:WA, 2008 Θ NWA, 1998	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
		OPERATIONAL PHASE		
		2. Single Poultry Unit Management Θ No additional poultry production units may be established without prior environmental authorisation and review of biosecurity implications. **3. Employee Training and Awareness** Θ All employees must receive annual training on biosecurity protocols. Θ Training must include cross-contamination prevention, hygiene practices, disease identification, and reporting procedures. Θ Training registers and proof of attendance must be maintained for auditing and compliance purposes. **4. Footbaths and Sanitation Measures** Θ Footbaths and sanitation stations must be provided at designated entry points to all poultry houses. Θ Disinfectant solutions must be maintained at effective concentrations. Θ Footbaths must be inspected regularly and replenished as required to ensure effectiveness. **5. Personal Hygiene and Protective Clothing** Θ Personnel entering poultry houses must wear appropriate protective clothing and footwear dedicated to the facility.	Θ OHSA, 1993 Θ Integrated Pest Control Management Program (EMPr Appendix B)	

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		Θ Protective clothing must not be worn off-site to prevent cross-contamination. Θ Handwashing or sanitising facilities must be available and utilised before entry and upon exit. **6. Visitor Management** Θ Visitor access to poultry houses must be restricted. Θ All visitors must comply with established biosecurity protocols prior to entry. Θ A visitor register must be maintained on site. **7. Cleaning and Disinfection** Θ Cleaning and disinfection procedures must be implemented in accordance with poultry management standards. Θ Poultry houses must be sanitised following each production cycle. Θ Cleaning activities must comply with the Water and Waste Management measures set out in this EMPr. **8. Control of Vectors and Pests** Θ Measures must be implemented to control rodents, wild birds, and other potential disease vectors. Θ Waste management practices (refer to *Waste Management*) must support vector control. Θ Any pest infestation must be addressed promptly.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
OPERATIONAL PHASE				
		9. Mortality Management Θ Poultry mortalities must be managed in a controlled and hygienic manner in accordance with *Waste Management Measures* of this EMPr. Θ Mortality handling must prevent disease spread and environmental contamination. **10. Monitoring and Record Keeping** Θ Records of flock health monitoring, mortality rates, veterinary visits, and biosecurity incidents must be maintained. Θ Any suspected disease outbreak must be reported to the relevant authorities in accordance with applicable legislation. Θ All biosecurity-related documentation must be kept on site and made available to the competent authority upon request.		
Potential impact on heritage resources.	±0.76 ha	**HERITAGE MANAGEMENT** Θ The historic granary located within the farmyard shall be retained and protected from demolition, alteration, or damage during future maintenance, upgrading, or expansion activities. No development activities shall take place that could compromise the structural integrity or heritage value of the granary without prior consultation with the relevant heritage authority.	Matters regarding heritage resources must be managed in accordance with the: Θ NHRA,1999	Throughout the operational phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
Θ Temporary disturbance of soil during dismantling of structures. Θ Generation of demolition waste. Θ Noise and dust associated with removal activities.	±0.76 ha	**SOIL DISTURBANCE AND DEMOLITION WASTE MANAGEMENT** **1. Demarcation and Limitation of Disturbance** Θ Areas to be disturbed during demolition activities must be clearly demarcated prior to commencement of works. Θ Disturbance must be limited to the minimum area required for safe and effective decommissioning. Θ No unauthorised disturbance outside the demarcated footprint may occur. **2. Erosion and Stormwater Control** Θ Appropriate erosion and stormwater control measures must be implemented prior to and during demolition. Θ Measures may include berms, silt fencing, diversion drains, or other suitable sediment control structures. Θ Sediment-laden runoff must not be allowed to leave the site. Θ Temporary erosion control measures must remain in place until rehabilitation is complete and stabilisation achieved. **3. Dust Management** Θ Dust generated during demolition and soil disturbance must be controlled through appropriate measures. Θ Dust suppression may include dampening of exposed surfaces, controlled demolition techniques, or other suitable methods.	Soil and waste management matters must be in accordance with the: Θ CARA, 1983 Θ NEMA, 1998 Θ NEM:WA, 2008	Throughout the decommissioning phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
		Θ Additional dust control measures must be implemented during dry and windy conditions. **4. Noise Control** Θ Demolition activities must be restricted to daylight hours. Θ All demolition machinery and equipment must be maintained in good working condition. Θ Silencers and exhaust systems must be functional to prevent excessive noise emissions. **5. Waste Segregation and Disposal** Θ Demolition waste must be separated into: o General waste, o Recyclable materials (e.g., scrap metal), and o Hazardous waste (if applicable). Θ All waste must be transported to appropriately licensed waste disposal or recycling facilities. Θ No unlawful dumping or on-site burial of demolition waste may occur. Θ Proof of safe disposal must be obtained and filed for auditing and compliance purposes. **6. Hazardous Material Management (If Applicable)** Θ Any hazardous materials identified during demolition (e.g., fuel residues, oils) must be handled and disposed of in accordance with applicable waste management legislation.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
		Θ Hazardous waste must be transported by a suitably authorised service provider. Θ Disposal certificates or safe disposal documentation must be retained. **7. Removal of Infrastructure** Θ Foundations, concrete slabs, and underground infrastructure must be removed where feasible. Θ Where infrastructure is left in place for beneficial reuse, it must not pose a contamination, safety, or land-use constraint risk. Θ Any subsurface contamination identified must be remediated in accordance with applicable legislation. **8. Rehabilitation and Reinstatement** Θ Disturbed areas must be re-profiled to match surrounding land contours. Θ Topsoil must be replaced where practicable. Θ Disturbed areas must be stabilised to prevent erosion. Θ Re-vegetation must be undertaken using appropriate indigenous grass species suitable for the local area. Θ Vegetation establishment must aim to restore soil stability and promote ecological recovery. **9. Site Clean-Up and Closure** Θ The site must be cleared of all rubble, waste materials, and temporary infrastructure prior to final closure.		

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
		Θ No residual waste or hazardous materials may remain on site. **10. Monitoring and Corrective Action** Θ Rehabilitated areas must be monitored to assess vegetation establishment and soil stability. Θ Monitoring must continue until successful stabilisation is achieved. Θ Corrective measures must be implemented where erosion, poor vegetation establishment, or subsidence is observed.		
Θ Loss of employment opportunities.	±0.76 ha	**SOCIO-ECONOMIC (EMPLOYMENT) MANAGEMENT** **1. Advanced Notice of Closure** Θ Employees must be informed in writing of the intended decommissioning and closure timeframe as early as reasonably practicable. Θ Notice periods must comply with applicable labour legislation. Θ Communication must allow employees reasonable opportunity for financial planning and alternative employment arrangements. **2. Compliance with Labour Legislation** Θ Any retrenchment or termination processes must be undertaken in full compliance with applicable labour legislation. Θ Fair consultation procedures must be followed where required. Θ All statutory notice periods, severance pay requirements, and employee rights must be honoured.	Employment matters must be managed in accordance with (amongst others) the: Θ OHSA, 1993	Throughout the decommissioning phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
		3. Phased Decommissioning Θ Where practicable, decommissioning activities must be phased to reduce abrupt termination of employment. Θ Phasing must be structured to provide a gradual reduction in workforce requirements where operationally feasible. **4. Temporary Employment Opportunities** Θ Affected employees must be prioritised, where possible, for temporary employment opportunities associated with decommissioning, demolition, site clean-up, and rehabilitation. Θ Employment allocation must consider skills, safety requirements, and operational competence. Θ Temporary employment opportunities must comply with occupational health and safety requirements.		
Θ Potential impact on palaeontological resources.	±0.76 ha	**PALAEONTOLOGICAL MANAGEMENT** **1. Chance Find Procedure** Θ If a chance find is made, the person responsible for the find must immediately stop working, and all work in the immediate vicinity of the find must stop as well. Θ The individual who discovered the item must immediately notify his or her direct supervisor, who must then notify his or her management and the ESO or site manager. The ECO or site	Palaeontological matters must be managed in accordance with the: Θ NHRA, 1999 Refer to the PIA attached as Appendix D2.	Throughout the decommissioning phase.

IMPACT	SIZE OF ACTIVITY	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
DECOMMISSIONING PHASE				
		manager must notify the relevant Heritage Agency (South African Heritage Resources Agency, SAHRA) of the discovery. Photographs of the find from various perspectives, as well as GPS coordinates, must be submitted to the Heritage Agency. Θ Within 24 hours of the discovery, a preliminary report must be sent to the Heritage Agency, which must include the following: 1) the date of finding; 2) a description of the discovery; and 3) a description of the fossil and its context (depth and position of the fossil), as well as GPS coordinates. Θ Photographs of the discovery must be of high quality, in focus, and accompanied by a scale. Photographs of the vertical part (side) where the fossil was discovered are also required. Θ Upon receipt of the preliminary report, the Heritage Agency will notify the ESO (or site manager) whether a palaeontologist rescue excavation or collection is required. Θ The place must be guarded to prevent future damage. There should be no attempt to remove material from their environment. Stabilize the exposed items and cover them with a plastic sheet or sand bags. The Heritage organization will also be able to advise on the best way to protect the find. Θ If the fossil cannot be stabilized, the ESO (site manager) may carefully collect the fossil. Θ Once the Heritage Agency has received the written authorization, the developer may continue with the development on the affected area. Θ Fossil finds must be placed in tissue paper and in an appropriate box while necessary care must be taken to remove any fossil material from the rescue site.		

c) ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

Copies of this EMPr must be kept at the site office and must be distributed to all senior contract personnel who shall familiarise themselves with its contents. The implementation of the EMPr requires the involvement of all site personnel, to ensure sound environmental management during the operational and decommissioning phases of the project.

1. ENVIRONMENTAL AUTHORISATION (EA) HOLDER

The EA holder will be Tsiyon Boerdery (Pty) Ltd and anyone appointed on behalf of the Applicant is accountable for the potential environmental impacts of all activities undertaken and is responsible for the management of the impacts as well as the implementation of the EMPr.

2. SUB-CONTRACTORS

Any sub-contractors that may be appointed must receive a copy of the EMPr and be inducted by the EA Holder's representative prior to commencement on site. All sub-contractors that enter the facility must comply with the requirements of the EMPr and ensure compliance of his/her employees.

3. ENVIRONMENTAL CONTROL OFFICER (ECO)

The EA holder must appoint a site based environmental control officer. The ECO must be readily available on site at all times to ensure that all activities are conducted in compliance with the approved EMPr.

The ECO must:

- Θ Keep and maintain a detailed incident register (including any spillages or fuel, chemicals and any other materials).
- Θ Keep a complaints register on site indicating the complaint and how the issues were addressed, what measures were taken and what preventative measures were implemented to avoid re-occurrence of complaints.
- Θ Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials.
- Θ Keep copies of all environmental reports submitted to the DESTEA.
- Θ Keep the records of all permits, licenses and authorisations required by the operation.
- Θ Compile a monthly monitoring report and make it available to the Department if requested.

- The duties and responsibility of the ECO must not be seen as exempting the EA holder from the legal obligations in terms of NEMA.

4. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

The EA holder must annually (or as prescribed by the Competent Authority) appoint an independent environmental assessment practitioner (EAP) to objectively assess the compliance of the layer facility with the conditions of the approved EMPr. The EAP must report the compliance of the facility to the DESTEA in accordance with the frequency stipulated in the Environmental Authorisation.

(APPENDIX 4 SECTION 1(1)(e) – (k))

MECHANISMS FOR MONITORING COMPLIANCE WITH AND PERFORMANCE ASSESSMENT AGAINST THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND REPORTING THEREON, INCLUDING

F. MONITORING OF IMPACT MANAGEMENT ACTIONS

G. MONITORING AND REPORTING FREQUENCY

H. RESPONSIBLE PERSONS

I. TIME PERIOD FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS

J. MECHANISMS FOR MONITORING COMPLIANCE

Table 5: Mechanisms for monitoring compliance with and performance assessment against the EMPr and reporting thereon.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
WATER MANAGEMENT MEASURES			
Θ Increased water demand associated with poultry production. Θ Incremental pressure on local water resources.	Θ Automated watering system. Θ Automated climate control system. Θ Maintenance programme and control register.	MITIGATION / MONITORING TO BE IMPLEMENTED **1. Efficient Watering Systems** Θ The poultry houses must utilise automated nipple drinking systems to minimise water spillage. Θ Drinking lines must be fitted with flow-control mechanisms to regulate supply according to demand. Θ Open-trough watering systems may not be used.	RESPONSIBLE PERSON Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent Environmental Assessment Practitioner

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
	Θ Adequate water storage equipment.	**2. Water-Efficient Climate Control** Θ The evaporative cooling systems (wet screens) must operate on a closed-loop recirculation system. Θ Cooling water must continuously be recycled, with only evaporative losses replaced. Θ The system must daily be monitored to ensure efficient operation and to prevent excessive water consumption. **3. Leak Detection and Preventative Maintenance** Θ All pipelines, valves, drinker systems, storage tanks, and cooling system components must be inspected at least weekly. Θ Any leaks or system malfunctions must be repaired immediately upon detection. Θ A preventative maintenance schedule must be implemented, and records of inspections and repairs must be kept on site. **4. Controlled Cleaning Practices** Θ Poultry houses must be sterilised after each production cycle (approximately every 18 months). Θ High-pressure, low-volume cleaning equipment must be used to minimise water consumption. Θ Water use during cleaning must be monitored to prevent excessive use. **5. Water Storage and Abstraction Control** Θ Water abstraction must be managed through on-site storage tanks to regulate supply and reduce peak abstraction rates.	(EAP) during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Stored water must be used to balance daily demand and prevent unnecessary over-abstraction from the source. Θ Water use volumes must be monitored to ensure compliance with authorised water use allowances.	
MANURE MANAGEMENT MEASURES			
Θ Generation of manure requiring management and disposal or reuse. Θ Potential odour emissions from poultry houses and manure storage areas. Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Cumulative odour and traffic impacts in combination with other agricultural	Θ Automated manure handling system. Θ Adequate manure storage area. Θ Maintenance programme and control register.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Manure Removal and Handling** Θ Each layer house must be fitted with an automated manure belt removal system to ensure routine removal of manure and to prevent prolonged accumulation. Θ The manure removal system must operate at intervals sufficient to minimise ammonia build-up and odour generation. Θ Manure must be conveyed to a designated collection area located within the approved footprint. Θ Manure must not be stored on-site for longer than 5–6 days unless otherwise authorised. **2. Off-Site Beneficial Use** Θ All manure generated on-site must be transported to agricultural fields for beneficial use as organic fertiliser. Θ Manure must be applied in accordance with agronomic requirements and crop nutrient demands. Θ Application rates must be managed to prevent over-application of nitrogen and phosphorus.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent Environmental Assessment Practitioner (EAP) during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
activities in the area.		Θ Records of manure volumes removed and land application areas must be maintained for monitoring and compliance purposes. **3. Timing of Land Application** Θ Manure must not be applied during periods of heavy rainfall or when soils are waterlogged. Θ Land application must be scheduled to minimise the risk of nutrient runoff or leaching to groundwater and adjacent watercourses. **4. Inspection and Maintenance** Θ The manure removal system, collection areas, and loading areas must be inspected at least weekly. Θ Any spillage, leakage, or malfunction must be rectified immediately. Θ Inspection and maintenance records must be kept on site.	
STORMWATER MANAGEMENT MEASURES			
Θ Generation of manure requiring management and disposal or reuse. Θ Potential odour emissions from poultry houses and manure storage areas.	Θ Clean and dirty water separation system. Θ Settling pond. Θ Controlled manure stockpile area. Θ Maintenance programme and control register.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Clean and Dirty Water Separation** Θ A clean and dirty water separation system must be implemented at the manure stockpile area. Θ Clean stormwater must be diverted away from the manure stockpile footprint. Θ An upslope cut-off drain or diversion berm must be constructed to intercept and divert uncontaminated stormwater to a stable discharge point. Θ A downslope containment berm must be constructed to prevent runoff from flowing toward the Tierpoort River.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Incremental pressure on local water resources.		**2. Dirty Water Management** Θ All runoff originating from the manure stockpile and loading area must be directed to a purpose-designed settling pond or equivalent containment structure. Θ The settling pond must allow for sedimentation of suspended solids and reduction of nutrient loads prior to reuse or controlled discharge. Θ The settling/containment structure must be appropriately sized for the contributing catchment area. Θ The structure must include adequate freeboard, erosion protection, and a controlled outlet to prevent overtopping and uncontrolled discharge. Θ Where required based on soil permeability and groundwater risk, the settling pond and/or manure stockpile pad must be lined (e.g., compacted clay or geomembrane) to reduce seepage. **3. Location and Setbacks** Θ A minimum setback distance of 120 m must be maintained between the manure stockpile area and the Tierpoort River and farm borehole, unless otherwise authorised. Θ The manure stockpile area must be established on a compacted, stable surface graded toward the dirty-water collection system. Θ Vegetated buffer areas between the stockpile area and the Tierpoort River must be maintained and protected. **4. Stockpile Management** Θ Uncontrolled runoff pathways from the stockpile area must not be permitted.	the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		5. Inspection, Maintenance and Monitoring Θ Stormwater infrastructure (diversion drains, berms, settling pond) must be inspected regularly (minimum monthly) and after significant rainfall events. Θ Accumulated sediment within the settling pond must be removed as required to maintain operational capacity. Θ No discharge of untreated runoff from the manure stockpile area to the Tierpoort River or associated drainage lines may occur. Θ Monitoring and maintenance records must be kept on site and made available upon request by the competent authority.	
NOISE MANAGEMENT MEASURES			
Θ Operational noise from ventilation fans, generator and loading activities.	Θ Mechanical ventilation system. Θ Standby generator. Θ Complaints register.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Ventilation Systems** Θ Mechanical ventilation fans installed within the layer houses must be maintained in proper working condition to prevent abnormal noise associated with mechanical failure, imbalance, or wear. Θ Ventilation fans must be inspected at least monthly. Θ Any defective, worn, or imbalanced components contributing to excessive noise must be repaired or replaced immediately. Θ Maintenance records must be kept on site. **2. Standby Generator Management** Θ The standby generator must be housed within a designated enclosed room to provide acoustic attenuation during operation.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ The enclosure must be maintained in good condition. Θ Where practicable, generator maintenance testing must be undertaken during daylight hours. **3. Loading and Operational Activities** Θ Loading and offloading of eggs, feed, hens, and related materials must occur during daylight hours only. Θ No routine night-time loading or offloading activities may be undertaken. Θ Vehicles and equipment associated with loading and transport must be maintained in good working condition, including exhaust and silencing systems. Θ Unnecessary idling of delivery and collection vehicles within the facility yard must be avoided. **4. Complaint Monitoring and Response** Θ Any noise-related complaints received must be recorded in a complaints register. Θ All complaints must be investigated promptly. Θ Corrective measures must be implemented where necessary to address verified noise impacts. Θ Records of complaints and corrective actions must be kept on site and made available upon request by the competent authority.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
WASTE MANAGEMENT MEASURES			
Θ Generation of general operational waste (feed bags, packaging, mortalities). Θ Potential attraction of pests such as rodents, flies and scavenger birds. Θ Risk of soil or groundwater contamination if manure or wastewater is mismanaged. Θ Cumulative odour and traffic impacts in combination with other agricultural activities in the area.	Θ Cover waste containers. Θ Waste disposal register/certificates. Θ Dedicated composting area/system and control register. Θ Settling pond. Θ High-pressure, low-volume sprayers. Θ Integrated Pest Control Management Program (EMPr Appendix B)	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Separation and Storage of Waste** Θ Waste streams must be separated at source into general (non-biodegradable) and organic waste. Θ Designated refuse bins must be provided within the operational area. Θ All waste storage containers must remain covered to prevent littering, wind dispersion, odour generation, and vermin access. Θ Waste storage areas must be maintained in a clean and orderly condition at all times. **2. Management of General Waste** Θ Non-biodegradable waste (e.g., plastic packaging, paper, cardboard) must be collected and stored temporarily in designated containers. Θ General waste must be removed from the facility at least weekly or as required to prevent accumulation. Θ General waste must be transported to a lawful waste management facility (e.g., Bloemfontein landfill site). Θ Records of waste removal and disposal must be maintained on site. **3. Management of Poultry Mortalities** **3.1 General Requirements** Θ Poultry mortalities must be identified and removed from the houses immediately.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Θ Incremental pressure on local water resources.		Θ The cause of mortalities must be investigated where required in accordance with biosecurity protocols. Θ Workers must receive training in the correct handling of sick and dead animals. Θ Mortality management must comply with the National Environmental Management: Waste Act, the Animal Diseases Act, and any directives issued by the competent authority. Θ On-site incineration of routine mortalities must be discontinued and replaced with a controlled on-site composting system. **3.2 Controlled On-Site Composting System (Low-Volume)** **<u>Location and Setbacks</u>** Θ A dedicated composting area must be established outside drainage lines and outside the riparian buffer of the Tierpoort River. Θ The composting area must be located at least 120 m from the Tierpoort River, and boreholes. Θ The site must be situated on stable, well-drained ground and outside flood-prone areas. **<u>Engineered Base and Leachate Control</u>** Θ The composting system must be established on a compacted, low-permeability surface (e.g., compacted clay or concrete slab). Θ The composting area must be graded to prevent runoff from leaving the footprint. Θ Where required, containment measures must be installed to prevent leachate migration.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Composting Management Θ Carcasses must be layered with an adequate carbon source (e.g., dry litter, straw, wood chips) to maintain an appropriate carbon-to-nitrogen ratio. Θ Carcasses must be completely covered with carbon material to prevent odour and scavenger access. Θ Compost piles must be managed to maintain aerobic conditions and appropriate internal temperatures to ensure effective pathogen reduction. Θ The composting area must be fenced or secured to prevent access by domestic animals, wildlife, and vermin. Θ The composting system must be monitored for odour generation and corrective action taken where necessary. Θ Compost must be allowed to mature fully prior to application on agricultural land. Θ Mature compost may be applied in accordance with agronomic nutrient management principles. **Record Keeping** Θ Records of mortalities and composting volumes must be maintained for monitoring and compliance purposes. **3.3 Unusual Mortality Rates, Suspected Disease Outbreak, or Epidemic Conditions (High Volume)** Θ A registered veterinarian must be notified immediately in the event of abnormal mortality rates or suspected disease outbreak. Θ Routine composting must be suspended if advised by the attending veterinarian or competent authority.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Where mortality volumes exceed the capacity of the composting system or where directed by the veterinarian, a registered rendering service must be commissioned to collect and dispose of carcasses. Θ Carcasses must be managed and disposed of in accordance with veterinary recommendations and applicable legislation, including biosecurity and animal health regulations. Θ Pending removal by a renderer, carcasses must be stored in a secure, leak-proof and covered area to prevent disease spread, odour, or scavenger access. Θ Enhanced biosecurity protocols must be implemented during outbreak conditions, including restricted access, disinfection measures, and controlled movement of personnel and equipment. Θ Areas associated with the outbreak must be cleaned and disinfected in accordance with veterinary guidance. **4. Management of Broken or Rejected Eggs** Θ Broken or rejected eggs must be collected separately from general waste. Θ Eggs must be stored appropriately (e.g., frozen) to prevent odour and vermin attraction. Θ Rejected eggs can be sold or transferred to a registered client for further processing. Θ Records of volumes removed must be maintained. **5. Sewerage Management** Θ Domestic effluent from employee ablution facilities must be directed to the existing on-site septic tank system. Θ No domestic effluent may be discharged to drainage lines or surface water resources.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ The septic tank and French drain system must be inspected at least monthly. Θ Any indication of malfunction (e.g., odour, pooling, slow drainage, overflow) must trigger immediate inspection and corrective action. Θ The septic system must be maintained to ensure adequate capacity and prevent environmental contamination. **6. Wash Water Management** Θ Wash water generated during house cleaning must be managed to prevent pollution of soil and water resources. Θ Floor gradients and/or drainage channels must direct wash water toward a designated collection point. Θ Wash water must be conveyed to a lined or appropriately compacted settling pond. Θ The settling pond must prevent uncontrolled seepage and overtopping. Θ Clarified effluent from the settling pond may be applied to designated agricultural land. Θ Application rates must be controlled to: o Prevent surface runoff, o Avoid ponding, o Prevent over-saturation of soils, o Minimise nutrient leaching. **7. Housekeeping and Monitoring** Θ Good housekeeping practices must be maintained throughout the facility. Θ Waste must not be allowed to accumulate in operational areas.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Monitoring records for waste removal, composting, and effluent management must be kept on site and made available to the competent authority upon request.	
EMERGENCY SECURITY AND VENTILATION MANAGEMENT MEASURES			
Θ Risk to poultry health during power outages if ventilation fails.	Θ Standby generator. Θ Adequate automated ventilation system.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Standby Power Supply** Θ The facility must maintain a functional standby generator to provide emergency power during electricity supply interruptions. Θ The standby generator must supply backup power to all critical systems, including ventilation fans and essential operational equipment. Θ The generator must be capable of operating for a sufficient duration to safeguard poultry health during outages. **2. Generator Inspection and Maintenance** Θ The standby generator must be inspected, tested, and maintained on a routine basis to ensure operational readiness. Θ Scheduled testing must be undertaken to verify functionality and fuel availability. Θ Records of inspections, testing, maintenance, and fuel checks must be kept on site. **3. Solar Power Integration** Θ A solar power system must be considered, and if installed maintained in accordance with applicable electrical and safety standards.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ The solar installation (if installed) must supplement grid electricity supply to enhance energy security and reduce reliance on the grid. Θ The system must be maintained in good working order to reduce the likelihood and severity of ventilation interruptions during power outages. **4. Environmental Monitoring and Emergency Response** Θ Temperature and airflow within the layer houses must be continuously monitored to detect deviations from acceptable operating ranges. Θ Operational staff must be trained to respond to power failures and ventilation system interruptions. Θ In the event of a power outage, the standby generator must be activated without delay. Θ Ventilation performance must be monitored during outage conditions to ensure adequate airflow and temperature control. Θ Any malfunction affecting poultry welfare must be addressed immediately.	
TRAFFIC MANAGEMENT MEASURES			
Θ Increased local traffic associated with feed delivery and egg distribution. Θ Cumulative odour and traffic impacts in combination with other agricultural	Θ Fence and gates to control access. Θ Dust suppression equipment (if needed).	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Scheduling of Deliveries and Collections** Θ Feed deliveries, egg collection, and other transport-related activities must be scheduled during daylight hours. Θ No routine night-time delivery or collection activities may occur unless required under exceptional circumstances.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
activities in the area.		**2. Access Control** Θ All delivery and collection vehicles must utilise established and designated access roads to and from the facility. Θ No informal or unauthorised access routes may be created or used. Θ Access roads must be maintained in a safe and functional condition. **3. Driver Conduct and Road Safety** Θ All drivers accessing the facility must comply with applicable speed limits on farm roads. Θ Drivers must adhere to safe driving practices at all times. **4. Vehicle Roadworthiness** Θ All transport vehicles servicing the facility must be roadworthy and maintained in good working condition. Θ Vehicles must not emit excessive noise, exhaust emissions, or fluid leaks. Θ Any vehicle found to be leaking fluids on site must be addressed immediately to prevent soil contamination. **5. Dust Management** Θ Access roads must be monitored for excessive dust generation associated with operational traffic. Θ Where noticeable dust impacts occur, appropriate dust suppression measures must be implemented. Θ Dust control measures may include road maintenance, grading, application of water, or other suitable suppression methods.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
GROUNDCOVER AND VEGETATION MANAGEMENT MEASURES			
Θ Potential spread of alien invasive plant species in denuded areas.	Θ Alien invasive plant species management plan. Θ Designated team to cut or pull-out invasive plant species that germinated on site. Θ Contact details of a Pest Control Officer. Θ Fire management plan.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Routine Vegetation Control** Θ Pioneer and nuisance vegetation must be removed on a routine basis through mechanical clearing and/or hand-pulling. Θ Vegetation regrowth must be slashed or mowed periodically to maintain low vegetation height. Θ Vegetation control must aim to prevent excessive biomass accumulation and reduce fire risk. Θ Cleared vegetation must be managed appropriately to prevent re-establishment or spread. **2. Alien and Invasive Species Management** Θ Alien and invasive plant species must be identified and controlled in accordance with the National Environmental Management: Biodiversity Act (NEM:BA) Alien and Invasive Species Regulations. Θ Where listed invasive species are identified, appropriate control measures must be implemented. Θ Follow-up clearing must be undertaken to prevent re-infestation. Θ Records of invasive species control measures must be kept where required. **3. Prevention of Vegetation Encroachment** Θ Vegetation-free zones must be maintained immediately adjacent to the poultry houses.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ These buffer zones must reduce fire risk, pest harbourage, and potential disease vectors. Θ Pathways, service areas, and operational working surfaces must be kept clear of dense vegetation at all times. **4. Soil Stabilisation and Erosion Control** Θ Compacted and disturbed areas must be monitored for signs of erosion. Θ Where erosion is identified, stabilisation measures must be implemented. Θ Stabilisation measures may include contouring, light compaction, gravel placement in high-traffic areas, or other suitable erosion control interventions. Θ Stormwater flow paths must not be altered in a manner that causes erosion. **5. Operational Hygiene and Biosecurity** Θ Vegetation control must form part of the facility's broader biosecurity management plan. Θ Groundcover management practices must support pest control, disease prevention, and overall flock health. Θ Vegetation control measures must not compromise environmental compliance or create secondary impacts (e.g., erosion or runoff).	
LIGHTING MANAGEMENT MEASURES			
Θ Night-time lighting effects, if unmanaged.	Θ Energy-efficient lighting systems.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. External Lighting Control** Θ External lighting must be limited to areas where illumination is required for safety and essential operational activities.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ No unnecessary lighting may be installed within the facility. Θ Lights must be switched off when not required. Θ Floodlighting and high-mast lighting may not be utilised on site unless otherwise authorised. **2. Directional and Shielded Fixtures** Θ All external lighting fixtures must be downward-facing and fitted with appropriate shielding. Θ Lighting must be designed to prevent horizontal light spill beyond the facility boundary. **3. Control of Light Intensity** Θ Lighting intensity must be maintained at the lowest level practicable to ensure safe visibility. Θ Lighting must not cause disturbance to adjacent properties or surrounding land uses. **4. Energy Efficiency** Θ Energy-efficient lighting systems (e.g., LED technology) must be utilised to reduce energy consumption and overall light output. Θ Lighting systems must be maintained to ensure continued efficiency and proper functioning. **5. Internal Poultry House Lighting** Θ Internal lighting within the poultry houses must be managed in accordance with poultry husbandry requirements.	Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Appropriate dark periods must be maintained during night-time hours to ensure adequate rest for the birds. Θ Lighting cycles must support animal welfare and operational biosecurity requirements.	
BIOSECURITY MANAGEMENT MEASURES			
Θ Potential spread of disease if hygiene and biosecurity measures are not maintained.	Θ Fence and gates to control access. Θ Induction training records. Θ Footbaths and sanitation equipment. Θ Personnel protective equipment. Θ Visitors register. Θ Pest control and sanitation registers. Θ Integrated Pest Control Management Program (EMPr Appendix B)	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Access Control and Perimeter Security** Θ The facility must remain enclosed by perimeter fencing to prevent unauthorised access. Θ Entry to poultry houses and operational areas must be strictly controlled. Θ Access points must remain secured when not in use. **2. Single Poultry Unit Management** Θ No additional poultry production units may be established without prior environmental authorisation and review of biosecurity implications. **3. Employee Training and Awareness** Θ All employees must receive annual training on biosecurity protocols. Θ Training must include cross-contamination prevention, hygiene practices, disease identification, and reporting procedures. Θ Training registers and proof of attendance must be maintained for auditing and compliance purposes.	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		4. Footbaths and Sanitation Measures Θ Footbaths and sanitation stations must be provided at designated entry points to all poultry houses. Θ Disinfectant solutions must be maintained at effective concentrations. Θ Footbaths must be inspected regularly and replenished as required to ensure effectiveness. **5. Personal Hygiene and Protective Clothing** Θ Personnel entering poultry houses must wear appropriate protective clothing and footwear dedicated to the facility. Θ Protective clothing must not be worn off-site to prevent cross-contamination. Θ Handwashing or sanitising facilities must be available and utilised before entry and upon exit. **6. Visitor Management** Θ Visitor access to poultry houses must be restricted. Θ All visitors must comply with established biosecurity protocols prior to entry. Θ A visitor register must be maintained on site. **7. Cleaning and Disinfection** Θ Cleaning and disinfection procedures must be implemented in accordance with poultry management standards. Θ Poultry houses must be sanitised following each production cycle. Θ Cleaning activities must comply with the Water and Waste Management measures set out in this EMPr.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		8. Control of Vectors and Pests Θ Measures must be implemented to control rodents, wild birds, and other potential disease vectors. Θ Waste management practices (refer to *Waste Management*) must support vector control. Θ Any pest infestation must be addressed promptly. **9. Mortality Management** Θ Poultry mortalities must be managed in a controlled and hygienic manner in accordance with *Waste Management Measures* of this EMPr. Θ Mortality handling must prevent disease spread and environmental contamination. **10. Monitoring and Record Keeping** Θ Records of flock health monitoring, mortality rates, veterinary visits, and biosecurity incidents must be maintained. Θ Any suspected disease outbreak must be reported to the relevant authorities in accordance with applicable legislation. Θ All biosecurity-related documentation must be kept on site and made available to the competent authority upon request.	
HERITAGE MANAGEMENT MEASURES			
Θ Potential impact on heritage resources.	Θ Induction training records.	MITIGATION / MONITORING TO BE IMPLEMENTED	RESPONSIBLE PERSON

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
	Θ Contact details of a qualified archaeologist.	Θ The historic granary located within the farmyard must be retained and protected from demolition, alteration, or damage during future maintenance, upgrading, or expansion activities. No development activities may take place that could compromise the structural integrity or heritage value of the granary without prior consultation with the relevant heritage authority.	Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.
DECOMMISSIONING PHASE: SOIL DISTURBANCE AND DEMOLITION WASTE MANAGEMENT MEASURES			
Θ Temporary disturbance of soil during dismantling of structures. Θ Generation of demolition waste. Θ Noise and dust associated with removal activities.	Θ Demarcation material. Θ Stormwater control structures such as berms where applicable. Θ Dust control equipment. Θ Covered waste containers. Θ Waste disposal registers.	MITIGATION / MONITORING TO BE IMPLEMENTED **1. Demarcation and Limitation of Disturbance** Θ Areas to be disturbed during demolition activities must be clearly demarcated prior to commencement of works. Θ Disturbance must be limited to the minimum area required for safe and effective decommissioning. Θ No unauthorised disturbance outside the demarcated footprint may occur. **2. Erosion and Stormwater Control** Θ Appropriate erosion and stormwater control measures must be implemented prior to and during demolition. Θ Measures may include berms, silt fencing, diversion drains, or other suitable sediment control structures. Θ Sediment-laden runoff must not be allowed to leave the site.	RESPONSIBLE PERSON Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Temporary erosion control measures must remain in place until rehabilitation is complete and stabilisation achieved. **3. Dust Management** Θ Dust generated during demolition and soil disturbance must be controlled through appropriate measures. Θ Dust suppression may include dampening of exposed surfaces, controlled demolition techniques, or other suitable methods. Θ Additional dust control measures must be implemented during dry and windy conditions. **4. Noise Control** Θ Demolition activities must be restricted to daylight hours. Θ All demolition machinery and equipment must be maintained in good working condition. Θ Silencers and exhaust systems must be functional to prevent excessive noise emissions. **5. Waste Segregation and Disposal** Θ Demolition waste must be separated into: o General waste, o Recyclable materials (e.g., scrap metal), and o Hazardous waste (if applicable). Θ All waste must be transported to appropriately licensed waste disposal or recycling facilities. Θ No unlawful dumping or on-site burial of demolition waste may occur.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Proof of safe disposal must be obtained and filed for auditing and compliance purposes. **6. Hazardous Material Management (If Applicable)** Θ Any hazardous materials identified during demolition (e.g., fuel residues, oils) must be handled and disposed of in accordance with applicable waste management legislation. Θ Hazardous waste must be transported by a suitably authorised service provider. Θ Disposal certificates or safe disposal documentation must be retained. **7. Removal of Infrastructure** Θ Foundations, concrete slabs, and underground infrastructure must be removed where feasible. Θ Where infrastructure is left in place for beneficial reuse, it must not pose a contamination, safety, or land-use constraint risk. Θ Any subsurface contamination identified must be remediated in accordance with applicable legislation. **8. Rehabilitation and Reinstatement** Θ Disturbed areas must be re-profiled to match surrounding land contours. Θ Topsoil must be replaced where practicable. Θ Disturbed areas must be stabilised to prevent erosion. Θ Re-vegetation must be undertaken using appropriate indigenous grass species suitable for the local area. Θ Vegetation establishment must aim to restore soil stability and promote ecological recovery.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		9. Site Clean-Up and Closure Θ The site must be cleared of all rubble, waste materials, and temporary infrastructure prior to final closure. Θ No residual waste or hazardous materials may remain on site. **10. Monitoring and Corrective Action** Θ Rehabilitated areas must be monitored to assess vegetation establishment and soil stability. Θ Monitoring must continue until successful stabilisation is achieved. Θ Corrective measures must be implemented where erosion, poor vegetation establishment, or subsidence is observed.	
DECOMMISSIONING PHASE: SOCIO-ECONOMIC (EMPLOYMENT) MANAGEMENT MEASURES			
Θ Blasting Θ Excavation Θ Sloping and Landscaping during Rehabilitation of the Site	Θ Proof of labour discussions.	<u>MITIGATION / MONITORING TO BE IMPLEMENTED</u> **1. Advanced Notice of Closure** Θ Employees must be informed in writing of the intended decommissioning and closure timeframe as early as reasonably practicable. Θ Notice periods must comply with applicable labour legislation. Θ Communication must allow employees reasonable opportunity for financial planning and alternative employment arrangements. **2. Compliance with Labour Legislation**	<u>RESPONSIBLE PERSON</u> Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent EAP during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ Any retrenchment or termination processes must be undertaken in full compliance with applicable labour legislation. Θ Fair consultation procedures must be followed where required. Θ All statutory notice periods, severance pay requirements, and employee rights must be honoured. **3. Phased Decommissioning** Θ Where practicable, decommissioning activities must be phased to reduce abrupt termination of employment. Θ Phasing must be structured to provide a gradual reduction in workforce requirements where operationally feasible. **4. Temporary Employment Opportunities** Θ Affected employees must be prioritised, where possible, for temporary employment opportunities associated with decommissioning, demolition, site clean-up, and rehabilitation. Θ Employment allocation must consider skills, safety requirements, and operational competence. Θ Temporary employment opportunities must comply with occupational health and safety requirements.	

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
DECOMMISSIONING PHASE: PALAEONTOLOGICAL MANAGEMENT MEASURES			
Θ Potential impact on palaeontological resources.	Θ Contact details of a qualified palaeontologist.	MITIGATION / MONITORING TO BE IMPLEMENTED **1. Chance Find Procedure** Θ If a chance find is made, the person responsible for the find must immediately stop working, and all work in the immediate vicinity of the find must stop as well. Θ The individual who discovered the item must immediately notify his or her direct supervisor, who must then notify his or her management and the ESO or site manager. The ECO or site manager must notify the relevant Heritage Agency (South African Heritage Resources Agency, SAHRA) of the discovery. Photographs of the find from various perspectives, as well as GPS coordinates, must be submitted to the Heritage Agency. Θ Within 24 hours of the discovery, a preliminary report must be sent to the Heritage Agency, which must include the following: 1) the date of finding; 2) a description of the discovery; and 3) a description of the fossil and its context (depth and position of the fossil), as well as GPS coordinates. Θ Photographs of the discovery must be of high quality, in focus, and accompanied by a scale. Photographs of the vertical part (side) where the fossil was discovered are also required. Θ Upon receipt of the preliminary report, the Heritage Agency will notify the ESO (or site manager) whether a palaeontologist rescue excavation or collection is required. Θ The place must be guarded to prevent future damage. There should be no attempt to remove material from their environment. Stabilize the exposed items and cover them with a plastic sheet or sand bags. The Heritage organization will also be able to advise on the best way to protect the find.	RESPONSIBLE PERSON Θ Site Manager and ECO to ensure day-to-day compliance. Θ Compliance to be monitored by the independent Environmental Assessment Practitioner (EAP) during the annual environmental audit.

POTENTIAL IMPACT	FUNCTIONAL REQUIREMENTS FOR MONITORING	MANAGEMENT MEASURES	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
		Θ If the fossil cannot be stabilized, the ESO (site manager) may carefully collect the fossil. Θ Once the Heritage Agency has received the written authorization, the developer may continue with the development on the affected area. Θ Fossil finds must be placed in tissue paper and in an appropriate box while necessary care must be taken to remove any fossil material from the rescue site.	

(APPENDIX 4 SECTION 1(1)(l))

K. FREQUENCY OF SUBMISSION OF THE PERFORMANCE ASSESSMENT / ENVIRONMENTAL AUDIT REPORT

The Environmental Audit Report in accordance with Appendix 7 as prescribed in Section 34 of the EIA Regulations, 2014 (as amended) must annually be submitted to the DESTEA for compliance monitoring purposes or in accordance with the period stipulated by the department.

(APPENDIX 4 SECTION 1(1)(m))

L. ENVIRONMENTAL AWARENESS PLAN

Once the EMPr is approved by the DESTEA a copy of the approved document must be handed to the site manager for him to familiarise himself with. The operations manager must ensure that he understands the EMPr document and its requirement and commitments. The Environmental Control Officer must daily check compliance of the activities with the management programmes described in the EMPr.

An initial environmental induction meeting must be held with all the site employees to inform them of the Basic Rules of Conduct regarding the environment, and proof of attendance must be filed for auditing purposes. Each new employee (including those of sub-contractors) must attend the environmental induction meeting prior to commencement of his/her responsibilities. Subsequently, all employees must attend an annual environmental training refresher.

The environmental awareness plan must be a living document that is regularly reviewed and updated as relevant environmental concerns arise. The following list represents the basic steps towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks.

Θ **Site Management**

- Stay within boundaries of site – do not enter adjacent properties.
- Keep tools and material properly stored.
- Smoke only in designated areas.
- Use toilets provided – report full or leaking toilets.

Θ **Water Management and Erosion**

- Check that rainwater flows around work areas and are not contaminated.
- Report any erosion.
- Check that dirty water is kept from clean water.

Θ **Waste Management**

- Take care of your own waste
- Keep waste separate into labelled containers – report full bins.
- Place waste in containers and always close lid.
- Don't burn waste.
- Pick-up any litter laying around.

Θ **Hazardous Waste Management (Petrol, Oil, Diesel, Grease)**

- Never mix general waste with hazardous waste.
- Use only sealed, non-leaking containers.
- Keep all containers closed and store only in approved areas.
- Always put drip trays under vehicles and machinery.
- Empty drip trays after rain.
- Stop leaks and spills, if safe:
  - ✓ Keep spilled liquids from moving away.
  - ✓ Immediately report the spill to the site manager/supervision.
  - ✓ Locate spill kit/supplies and use to clean-up, if safe.
  - ✓ Place spill clean-up wastes in proper containers.
  - ✓ Label containers and move to approved storage area.

Θ **Discoveries**

- Stop work immediately.
- Notify site manager/supervisor.
- Includes – archaeological finds, cultural artefacts, contaminated water, pipes, containers, tanks and drums, any buried structures.

Θ **Air Quality**

- Wear protection when working in very dusty areas.
- Implement dust control measures:
  - ✓ Water all roads and work areas.
  - ✓ Minimize handling of material.
  - ✓ Obey speed limit and cover trucks.

Θ **Driving and Noise**

- Use only approved access road.
- Respect speed limits.
- Only use turn-around areas – no crisscrossing through undisturbed areas.

- Avoid unnecessary loud noises.
- Report or repair noisy vehicles.

Θ **Vegetation and Animal life**

- Do not remove any plants or trees without approval of the site manager.
- Do not collect firewood.
- Do not catch, kill, harm, sell or play with any animal, reptile, bird or amphibian on site.
- Report any animal trapped in the work area.
- Do not set snares or raid nests for eggs or young.

Θ **Fire Management**

- Do not light any fires on site, unless contained in a drum at demarcated area.
- Put cigarette butts in a rubbish bin.
- Do not smoke near gas, paints, or petrol.
- Know the position of firefighting equipment.
- Report all fires.
- Don't burn waste or vegetation.

(APPENDIX 4 SECTION 1(1)(n))

M. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

Apart from the information required in terms of Appendix 4 of the EIA Regulations, 2014 (as amended), this EMPR also incorporates a Fossil Chance Find Procedure, which outlines the protocol to be followed in the event that fossil material is uncovered during project activities, thereby ensuring compliance with relevant heritage resource management requirements (see EMPR Appendix A). No other specific information was requested by the DESTEA that had to be incorporated into this document.

N. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE.

The assumptions made in this document which relate to the assessment of the layer facility environment and mitigation measures proposed, stem from site specific information gathered from site inspections, desktop studies, and background information that were gathered by the EAP. No uncertainty regarding the project or the receiving environment could at this stage be identified.

O. UNDERTAKING BY EAP

The EAP herewith confirms

a) the correctness of the information provided in the reports;
b) the inclusion of comments and inputs from stakeholders and I&AP's (where applicable);
c) that the information provided by the EAP to interested and affected parties and any response by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein;

Christine Fouché

Signature of the environmental assessment practitioner:

Greenmined Environmental (Pty) Ltd

Name of Company:

02 June 2026

Date:

P. UNDERTAKING BY ENVIRONMENTAL AUTHORISATION HOLDER

I,…….……the undersigned and duly authorised thereto by……*Tsiyon Boerdery (Pty) Ltd*……hereby undertake to implement all the aspects contained in the EMPr and accept full responsibility therefore.

SIGNED at ……..…….. this ……..…… day of ……..……. 2026

_____

SIGNATURE

WITNESSES:

1…….

2…….

Official use

APPROVAL

Approved in terms of the National Environmental Management Act (NEMA), 1998 (Act 107 of 1998), as amended.

SIGNED at …… this …… day …… 202…….

_____

DESTEA-FS Head of Department

-END-

APPENDIX A
CHANCE FIND PROCEDURE

HERITAGE/CULTURAL CHANCE FIND PROCEDURE

- If during the operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.

- It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find and confirm the extent of the work stoppage in that area.

- The senior on-site Manager must inform the ECO of the chance find and its immediate impact on operations. The ECO must then contact a professional archaeologist for an assessment of the finds who must notify the SAHRA.

- Work may only continue once the go-ahead was issued by SAHRA.

FOSSIL CHANCE FIND PROCEDURE

- If excavations are needed, the rocks and discard must be given a cursory inspection by the environmental officer or designated person. Any fossiliferous material (plants, insects, bone or coal) must be put aside in a suitably protected place. This way the project activities will not be interrupted.

- Photographs of the putative fossils must be sent to a palaeontologist for a preliminary assessment.

- If there is any possible fossil material found by the developer/environmental officer/site management then a qualified palaeontologist sub-contracted for this project, must visit the site to inspect the selected material and check the dumps where feasible.

- Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits.

- If no good fossil material is recovered, then no site inspections by the palaeontologist will be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils.

- If no fossils are found and the excavations have finished, then no further monitoring is required.

APPENDIX B

INTEGRATED PEST CONTROL MANAGEMENT PROGRAMME