

**EMPr in terms of NEMA Act (107 of 1998)**

**Environmental Impact Regulations**

**APPENDIX 4 – EMPr**

**EMPr for the development and operation of a Piggery**

**\*\*\* Pig Farm Operation \*\*\***

## OVERVIEW

An Environmental Management Programme (EMPr) is a living document which is assembled to govern and direct an activity from inception, through construction into the final operational phase. Throughout the life of a project circumstances may change and as such the EMPr must be such that it may be altered, added to and changed in order to provide ongoing guidance to the operations but ultimately provide protection to the environment in which the activity is taking place.

As the EMPr is a guidance document to ensure environmental protection and compliance, the structure is such that it will initially “explain” the issue and then provide direct guidance under the heading **OPERATOR ACTIONS**. These Operator Actions are the direct instruction[s] to the operator of what is expected and what should be implemented.

### 1. Project Description

The development on Ptn 10 & 15 of Farm Blaauwbank 241 JQ in the Brits District / Bojanala District Municipality of:

- A pig farm with a holding capacity of 800 breeding sows;
- Building / pens / breeding operation of 50 000 sqm consisting of 24 houses for the breeding sows;
- Water supply from borehole supplies;
- Electricity supply from ESKOM connection;
- Feed silos for the storage of bulk feed;
- Animal waste to be utilized as organic fertilizer

### 2. Who is the EAP?

- RP Colyn / Green Environmental Consulting Services (Pty) Ltd / EAPASA EAP 2019/1358
- 1126 Waterpoort Street, Faerie Glen, Pretoria 0081
- Tel: 012 991 2575
- Mobile: 082 553 8844
- Email: [rpolyn@telkomsa.net](mailto:rpolyn@telkomsa.net)

#### 2.1 Expertise of the EAP

- EIA Consultant since 1996
- EAP Registered / EAPASA 2019/1358
- CV (attached as annexures)

#### 2.2 Map showing the existing and proposed additions

Refer Annexures – MAP – showing the existing infrastructure [farm house] as well as the proposed new additions.

#### 2.3 Property Details

Ptn 10 & 15 of Farm Blaauwbank 241 JQ Brits District / North West Province

### 3. Aspect of the activity contained in this EMPr

The EMPr will be looking at specific aspects in terms of:

- **Construction Phase**
  - Design of the infrastructure [buildings]
  - Excavations and Foundations
  - Building materials and its storage

- Waste and waste handling
- Sanitation in terms of staff ablutions and health
- **Operational Phase**
  - Traffic and Dust
  - Delivery times of incoming and outgoing trucks
  - Light and Light pollution
  - Animal waste and its handling / removal at the end of a cycle
  - Mortalities and its handling
  - Bio-Security and a Bio-Security Plan for the operation
  - Electricity and Water Supply
  - Supplies of new breeding stock to the facility
- **Closure Phase**
  - Actions and considerations should the facility need to close down permanently.

**NOTE:**

This EMPr will govern the operation, from inception and construction, through operational for the life time of the facility.

As a living document the EMPr may be amended as and when required, with all changes documented and the EMPr being the main document against which compliance must be determined via an independent audit.

## SECTION A – Planning & Pre-Construction Phase

### 1. Management objectives in terms of impacts and risk that require consideration during the PLANNING & DESIGN Phase.

The main objective of assessment and consideration of risks and impacts is to:-

[a] avoid impacts as far as possible, and

[b] where impacts cannot be avoided to mitigate and minimise impacts and risks to a point where it becomes small in the bigger picture of development.

The following has been brought into consideration during the **PLANNING & DESIGN** of the proposed project and the impact management outcome required:-

- **Solar**  
The inclusion of solar for water heating and where possible for solar power is being considered. Such installation will minimise the impact on electricity supply from the National Grid and will also be more carbon neutral in terms of emissions.
- **Rainwater**  
Harvesting of rainwater where possible to offset against the use of water from borehole. Borehole water is a valuable resource and should be protected. Utilising rainwater saves on electrical power to run the pumps and save power from the National Grid.
- **External lights**  
The consideration of down-lighters to minimise the effect of light pollution in terms of the adjacent properties. Lights are necessary for security, however there is no need to light up the surrounding properties but rather provide light at key points that are vulnerable.
- **Separation of Waste**  
The separation of waste to promote recycling and re-use of waste items before being sent to landfill.
- **Integration of existing infrastructure**  
The integration of the new development into the existing infrastructure and the sharing of common infrastructure to minimise the development requirements and footprint.

### 2. Documentation and Actions required during Pre-Construction

The following is required to be in place and readily available as part of the “site office” set-up before the commencement of any construction activity:-

- **EA / Authorisation**  
A copy of the formal NW-DEDECT approved Environmental Approval [EA], for the construction, development and operation of a piggery [ 800 nbreeding sows];
- **EMPr**  
A copy of the approved EMPr, to be on file at the Site Office;
- **Contractor Acceptance**  
Signed acceptance of the approved EMPr by all contractors that will provide a service during the development /construction, on file at the Site Office;
- **Site Office**  
A demarcated Site Office area with storage for documents and authorisations together with:
  - First Aid kit;
  - Specific waste bins for biodegradable items i.e. plastics; metal and dangerous goods such as paint tins;

- Ablution facilities for the construction workers;
- Storage for cement and empty cement bags;
- Fire extinguishers
- **Development Area**
  - Demarcated area where the development will take place;
  - Chevron [Red & White plastic] tape demarcating the bio-area where no construction workers may pass into;
  - Demarcated area for the parking of construction equipment and the fuel bowser / fuel donkey together with drip trays and spill kit cleaning equipment.

## Section B – Construction Phase

The possibility of impacts on the receiving environment is greatest during the Construction Phase. It is for that reason that the following has been identified and requires special attention and where necessary mitigation to minimise impacts on the environment.

The design of the buildings will be for environmentally controlled and fully enclosed type houses where an advanced computer system controls temperature; air flow; oxygen levels; feeding times and heating in the event of a cold spell.

### a) Determination of the best position / portion of land to be used

A Specialist review of the land was undertaken to determine the best possible portion of the farm to be utilised. The study identified a portion of land that was formerly cultivated land [many years ago] and as such will see minimal impacts in terms of indigenous trees being removed.

### b) During Construction

#### • Excavations and Foundations

All excavations or open foundation areas must be clearly marked and made safe as part of the overall H&S of the site. Trenches must be infilled and compacted to prevent soils subsiding or posing a danger to those working on site.

#### • Staff training and briefing

All construction staff are to receive an introductory briefing on protection of the environment; waste handling; safety and health issues. Attendance and training to be documented and all staff to sign off that training was done.

Regular weekly refresher sessions at the start of business to be undertaken to ensure that construction staff remain current. Attendance to be documented and kept on file.

#### • Ablutions and personal wash areas

Portable ablutions for the construction staff to be cleaned and sanitised on a daily basis.

Portable ablutions to be serviced and refreshed by a service company at least once a week.

Proof of servicing to be kept on file.

The use of the adjacent environment as a toilet convenience is not permitted.

#### • Trees & Shrubs

The removal of any vegetation may only occur in the identified portion of land.

#### • Cement wash-down

A specific area must be provided for cement wash-down to take place. This area must be allowed to dry and the dried cement removed for disposal. No indiscriminate wash-down is allowed.

#### • Rubble and refuse

Daily cleaning of the construction site will reduce the risk of rubble blowing around and polluting the adjacent area / other properties.

Rubble must be sorted into the correct bins as to their nature i.e. bio-degradable; glass; plastic; cardboard and metal. The use of different coloured bins for the different types of waste stream is encouraged.

Cement bags must be kept aside and must be disposed of at an appropriate site.

**No burning of waste or cement bags to take place on site at any time!**

**No burying of waste or cement bags to take place anywhere on site!**

- **Building rubble**

The construction will produce solid building rubble i.e. broken bricks and concrete. Such items should be placed in a proper waste skip [obtainable from the municipality or private contractor], and should be removed and emptied when full to an approved landfill site.

Building rubble not utilised as infill should be disposed of at an approved landfill site and not left as rubble heaps on the property or merely disposed of onto vacant land.

All waste removal to an approved landfill site must be documented and a receipt obtained for future audit purposes.

- **Audits and Audit Reports**

An Internal Audit must be undertaken at least **once a week** to ensure that the construction phase adheres to the approved EMPr. The audit must be undertaken by the on-site Environmental Control Officer [ECO]. These Audit Reports must be kept on file for external audit purposes or inspections by the NW-DEDECT when undertaken.

A **monthly External Audit** must be undertaken by the EAP / External ECO or another independent auditor as the next level of checking of compliance and adherence to the approved EMPr. Such audits must be accompanied by a formal report and the reports must be kept on file for auditing by the NW-DEDECT.

- **Non-Compliance; Issues & Remedies**

All issues; non-compliance and remedies must be recorded and kept on file for audit purposes. Where remedies are suggested and changes to the actual EMPr is made, such changes must be fully documented and the signed off as part of the overall audit programme.

- **Environmental Incident Register**

The on-site ECO must keep a formal **Environmental Incident Register** where all complaints received; information of plaintiff along with contact details and the remedy provided must be recorded. This will ensure that similar incident do not occur again.

**c) After Construction**

Certain aspects need specific attention at the end of construction before operations commence in terms of the rehabilitation of the environment.

- **Building rubble**

All building rubble not used as infill during construction must be removed from site to an approved landfill.

No burning or burying of rubble allowed on site and no trash heaps to be left unattended.

- **Excess soils**

Excess soils not utilised during the construction of the new houses must be levelled out, any rubble removed for disposal. No waste soils may be dumped without authorisation.

**d) Ensuring Compliance**

As the Construction Phase is the time where most impacts may occur and where there is likely to be unwanted impacts, the following must be adhered to:-

- **EMPr**

Ensuring that each contractor receives a copy of the EMPr before starting to work on sit; signs acceptance of the EMPr and all signed document to be kept on file at the on-site ECO station. That all contractors receive a list of fines for non-compliance and signs acknowledgement of the information.

- **Audits**

Environmental Audit by an independent person to be undertaken once a month in addition to the weekly audits undertaken by the on-site ECO. The independent audit report must contain a list of irregularities [if there are any] as well as the rectifications required.

- **Daily checks**

The on-site ECO must undertake daily checks to ensure compliance of the EMPr; ensure staff training; address issues as they arise and assist in solving problems as and when they arise. Careful record keeping of all actions must be kept for audit purposes.

**e) Who are the main players?**

The following are the main players during the Construction Phase in terms of enforcing and maintaining the EMPr:-

- **ECO [on-site] [Environmental Control Officer]**

The on-site ECO must ensure daily enforcement and compliance as well as record keeping of all actions; rectifications and adjustments made to the approved EMPr.

The on-site ECO must also ensure that the construction phase undergo a weekly internal audit to ensure compliance.

- **EAP / External Auditor / Independent ECO**

The EAP / External Auditor must ensure monthly audits; an audit report and assist in rectifying issued as and when they arise. All reports and amendments to the EMPr must be documented and kept on file at the on-site ECO station.



## Section C – Operational Phase

During the Operational Phase certain aspects require careful attention in order to protect the receiving environment. The following aspects have been identified.

- **Traffic & Dust**

Traffic and dust creation goes hand in hand. The operation must enforce speed control where possible and advise deliveries to adhere to speed limitations in order to minimise dust creation and also the noise coming from large trucks.

- **Traffic times**

Being a rural area the noise of vehicles may be bothersome. As such deliveries and uplifting of stock should ultimately be scheduled for normal day light hours in order to minimise disturbances.

- **Waste**

No animal waste or mortalities collected may be left outside to develop odours; attract flies or cause an environmental nuisance. Bins, readily available, should be at hand to receive any form of rubble [i.e. municipal waste] where it must be removed to an approved landfill site. Waste separation should be done prior to deposition in order to assist in recycling of waste of value i.e. glass; plastic and cardboard.

Bins must be sanitised on a weekly basis to ensure that they remain odour free and do not allow the breeding of flies.

- **Animal Waste**

Animal waste is a major source of smells and fly infestations.

All animal waste collected at the end of a rearing cycle must be removed from site on the day that the waste is collected.

Timeous planning for the uplifting by end users must be made so that they can uplift the waste on the day that it becomes available.

Waste heaps **are not allowed** to lie outside the animal houses where water and heat can cause flies to breed uncontrolled.

No burying of animal waste is allowed to occur on the farm.

**NOTE:** Records must be kept of who takes/buys the animal waste; where its final destination [address] will be and what will the waste be used for [i.e. fertiliser]

- **Flies**

To maintain an environment where flies do not abound the operation should:-

- Employ a formal fly spray regime to control flies on the farm [normally contact spray];
- Ensure that feed has the required dosage of larvae control substance included to prevent larvae from developing;
- That all water points are properly working and does not cause leaks / wet areas in the animal house;
- That roofs are clear of leaks to prevent the animal waste becoming wet and being a place where flies can abound.

- **Mortalities**

All animal houses must be checked for sick or dead birds at least twice a day.

All mortalities must be removed to the cold storage area, awaiting removal by the contracted lion farm or animal feed manufacturer.

All mortalities removed from the farm must be transported in an enclosed container.

Equipment used to collect and gather mortalities must be disinfected after each use to protect the rest of the animals from any disease.

**NOTE:** Records of mortalities taken; by whom; final destination and final use to be documented and saved for audit purposes.

**NOTE:** No incineration of mortalities are allowed on site. Should incineration be considered then the appropriate application and an Air Emissions License Application be done.

- **Bio-Security**

The area around the operation must be clearly demarcated as a Bio-Security Area with proper access control; footbaths and sanitiser for all entering or leaving the site is a requirement. The site must have a biosecurity plan in place, and the staff must be trained in its requirements.

- **Supply of day-old chicks**

There are a number of suppliers of breeding animals to piggeries in South Africa. All new breeding stock must arrive having undergone their first set of inoculations. No “outside stock” from unknown sources should be allowed on site, as this may be dangerous to the rest of the operation.

- **Access points**

All access points to the farm must provide, as a minimum standard, foot baths and sanitising liquid for all incoming and outgoing staff.

- **Entrance Notices**

All access points to the farm must display the required information boards to announce bio-security area; the need to sanitise and the right of access being controlled.

- **Ablution facilities**

The farm must supply proper ablution facilities for staff to **shower in** and **shower out** at the end of a working day. This forms part of the bio-security regime for the operation.

- **External Lighting**

All external lighting to be down-lighter type lights where possible in order to prevent light pollution and light being a nuisance to adjacent properties.

- **Electricity and Water Supply**

Electricity supply; connections and installations must be approved and duly signed off along with the required CoC Certificates.

- **Incineration**

The incineration of mortalities on site is not allowed. Incineration requires an additional Air Emissions License to be obtained from the NW-DEDECT.

- **Coal Bunkers**

All coal bunkers must be supplied with a cement floor and either a roof or a sturdy tarpaulin to prevent the ingress of water taking place.

**NOTE: The dumping of coal and ash on the bare ground is not allowed.**

All coal dumps must be provided with a proper coal bunker.

All bunkers must either be covered by a roof or by a tarpaulin.

Water ingress is not allowed.

**a) Compliance to Environmental Management Standards**

There are certain standards and practices that the operation must follow at all times:-

- **EMPr**

It is important to scrutinise and follow the dictates of the approved EMPr at all times. This will ensure complete compliance; regular evaluation of the operation and its environmental standards and amendments being implemented to ensure that the environment is always the No.1 priority.

- **Bio-Security**

Bio-security and adhering to the rules of the bio-security plan for the operation are of prime importance.

Staff must be fully trained in all aspects of the bio-security plan and know exactly what is allowed and what is not.

Record keeping of training is essential and will form part of the audits in future.

- **Audits**

It is essential to ensure that the operation undergoes an external independent audit in terms of its environmental compliance, at least once a year. Such an audit must be accompanied by a formal report and suggested remedies [should there be any].

Formal record keeping is required for inspections by the NW-DEDECT.

Once in every five [5] year cycle a formal external audit report must be forwarded to the NW-DEDECT Compliance Division for insight and compliance.

**NOTE: In the event that an environmental audit reveals major non-compliance issues to be present, the independent environmental auditor can issue a non-compliance notice requesting remedy within a period not exceeding 30 days followed by a second audit to ensure compliance.**

**Should the issues persist then the environmental auditor must report the non-compliance to the relevant authority with a request for inspection and further actions.**

**b) Ensuring Compliance**

In order to ensure compliance and the enforcement of the EMPr as approved during the operational phase the following must be adhered to:-

- **EMPr**

The developer/operator must provide a signed acceptance of the approved EMPr and this acceptance letter must be placed along with the EA and EMPr onto the company environmental file.

- **Operational Documents**

An environmental file containing [a] Environmental Authorisation; [b] EMPr; [c] Signed EMPr acceptance letter by the developer and [d] Incident Report Form, must be available on site at all times for any inspection by the NW-DEDECT.

- **Audits**

Monthly internal audits by the operator / farm manager to ensure compliance. The operation will be provided with a check-list called **Aspects for Environmental Compliance / Operations** against which compliance must be checked.

**REFER: Annexures - Aspects for Environmental Compliance / Operations**

After the first year of full capacity operations, the operations will receive an environmental audit by an independent consultant, inclusive of a report and a list of non-compliance issues.

All non-compliance issues will be remedied and the correct procedures will be brought in place.

All audit reports; non-compliance issues; remedies and other actions undertaken will be kept on the on-site environmental file for inspection purposes. A copy of the Audit Report must be forwarded to NW-DEDECT once every 5 years [Compliance Division].

**c) Who are the main players?**

The following are the main players during the Operational Phase in terms of enforcing and maintaining the EMPr:-

- **Farm Manager**

The Farm Manager must ensure daily enforcement and compliance as well as record keeping of all actions; rectifications and adjustments made to the approved EMPr.

The Farm Manager must also ensure that the operational phase undergoes a monthly internal audit to ensure compliance.

- **EAP / External Auditor**

The EAP / External Auditor must ensure that a yearly audit is undertaken; an audit report is provided and assist in rectifying issues as and when they arise. All reports and amendments to the EMPr must be documented and kept on file at the Farm Manager's office.

**d) Special Precautions**

It is an acceptable practice that animal mortalities are taken away by other farming activities such as lion farms and crocodile farms where the mortalities are used as supplement feeding.

- a. No mortalities may be buried without authorisation from the authorities as such action poses a threat to underground water reserves;
- b. No mortalities may be incinerated as the action of incineration triggers activities under NEM:AQA and NEM:WA where additional licensing and an AEL will be required.

**WHEN IN DOUBT ASK YOUR ENVIRONMENTAL CONSULTANT**  
**ILLEGAL ACTIVITIES MAY INCUR FINES FROM THE AUTHORITIES**

## Section D – Closure Phase

**NOTE: Closure is not contemplated and as such is NOT APPLICABLE for this EMPr.**

Should a situation arise where the developer decides to close down the operation and scrap the activity, then the NW-DEDECT should be contacted in order to follow the correct procedure for closure and rehabilitation.

As there is no intention to proceed to closure no financial provision has been made for rehabilitation.

## Section E – Roles & Responsibilities

### Planning & Pre-Construction Phase

Impact Management Outcome: Design for renewables and other aspects to protect the environment						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Plan for renewables i.e. solar; rainwater harvesting; solar heaters and down lighter	Owner Architect	Through design	During design before construction	Owner Architect	ECO throughout the construction phase	ECO Signoff of installations as per architect design

Impact Management Outcome: Legal Authorisations and infrastructure						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Ensure that EA; EMPr and signed EMPr from contractors are on file; Ensure ablution facilities are available; Ensure H&S are in place	Owner ECO	Site office with documents; Installation of temporary toilets on site	Before the onset of Construction Phase	Owner Contractor ECO	Ongoing throughout the set-up and Construction Phase	ECO audit reports ; External Audit Reports

## Construction Phase

Impact Management Outcome:						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Owner / Operator to sign acceptance of the EMPr and copy on file	Owner Farm Manager	Signed documents on file	Before construction and operational phase	Farm Manager Owner	Quarterly	Documents of file
File with copy of approved EMPr on site	Farm Manager	Copies on file	Before construction and operational phase	Farm Manager	Quarterly	Documents of file
Incident record keeping on file on site	Farm Manager	Record keeping on file	Before the construction and operational phase	Farm Manager	Quarterly	Documents of file
Audit after 1 year and record on file	Farm Manager External Auditor	Records on file	At end of first year of operations	Farm Manager Owner to arrange	Yearly	Documents of file

Impact Management Outcome: Construction Compliance						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
External Audits monthly with full report on file	Owner Farm Manager	Documents on file in office	Monthly	Owner Farm Manager	Monthly	Reports on file
Issues & Remedies to be implemented	Owner Farm Manager	Report on file in office	Monthly	Owner Farm Manager	Monthly	Reports on file

Impact Management Outcome: Construction Activities						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Daily staff briefings on environmental safety	ECO	Daily morning briefing sessions	From onset of the construction activities	Eco External Audit	Daily Monthly	ECO Report External Audit Report
Sanitising of ablution facilities	Contractor ECO	Daily in the morning	From onset of construction	Contractor ECO	Daily	ECO Report External Audit Report
Rubble clearing	Contractor ECO	Collection daily at close of work	From onset of construction	Contractor ECO	Daily	ECO Report External Audit Report
Sorting of Waste Streams	Contractor ECO	Daily when rubble is collected	From onset of construction	Contractor ECO	Daily	ECO Report External Audit Report
Availability of waste drums and coloured waste bins	Contractor ECO	At start of construction	From onset of construction	Contractor ECO	Daily	ECO Report External Audit Report
Waste removal to landfill must be documented and proof retained	Contractor ECO	At start of construction	From onset of construction	Contractor ECO	Daily as required	ECO Report External Audit Report
Audit Reports must be retained on file	ECO	At start of construction	From onset of construction	ECO	Weekly and monthly	ECO Report on file External Audit Report on file
Non-compliance and remedies to be kept on file	ECO	From start of construction through audit reports	From onset of audits	ECO Contractor	Daily	ECO Audits External Audit Reports

Impact Management Outcome: Implementation of impact management actions – Construction Phase						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Day by day checks and remedies	ECO	Check list and internal audits	From start of construction	ECO	Daily	Records and internal audit reports
Monthly independent audits	EAP External Auditor	External audits with report	From start of construction	EAP External Auditor	Monthly	External Audit Reports and recommendations

Impact Management Outcome: Avoiding pollution or degradation						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Regular Internal and External Audits to monitor compliance	ECO External Auditor	ECO Reports EAP Audits once a month	From onset of construction phase	ECO External Auditor	Daily, weekly and monthly	ECO Report External Audit
Regular staff training and record keeping of training given	ECO Contractor	ECO Contractor	From onset of construction phase	ECO Contractor	Weekly	ECO Report External Audit
EMPr to each contractor against signature	ECO	ECO	From onset of construction phase	ECO	Start of each contract	ECO Report External Audit
Waste separation to take place in support of recycling	ECO Contractor	ECO Contractor	From onset of construction phase	Contractor ECO check	Daily	ECO Report External Audit
No burning of cement bags or burying of bags on site	ECO Contractor	ECO check Contractor	From onset of construction phase	Contractor ECO	Daily	ECO Report External Audit
No removal of any trees unless authorised by the EAP for the project	ECO Contractor EAP	ECO check Contractor	From onset of construction phase	Contractor ECO EAP	Ongoing for construction phase	ECO Report External Audit
Cement tools wash down in designated area only	ECO Contractor	ECO Contractor	From onset of construction phase	Contractor ECO	Daily	ECO Report External Audit
Ensure that ablutions are clean and serviceable. No use of the bushes or adjacent environment as a toilet	ECO Contractor	ECO	From onset of construction phase	ECO	Daily	ECO Report External Audit



Impact Management Outcome: Rehabilitation of the environment						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Removal of rubble not used as infill to landfill	Contractor ECO	By truck to landfill and receipt for deposition	Upon start of construction	Contractor ECO	As and when rubble is large enough for removal	ECO Report External Audit Report
No burning or burying of waste allowed	Contractor ECO	Daily checks by ECO	Upon start of construction	Contractor ECO	Daily checks by ECO	ECO Report External Audit Reports
Waste soils to be used in foundations or disposed at an approved site	Contractor ECO	Daily checks if soils are not being used	Upon start of earth works on site	Contractor ECO	Ongoing throughout construction	ECO Report External Audit Report
Must be infilled and compacted to ensure safety	Contractor ECO	Checked at end of construction	At end of construction	Contractor ECO	Whenever a trench needs closing in	ECO Signoff External Audit Report
Removal of the temporary site office and mobile toilets to final clean-up	Contractor ECO	End of construction phase removal by contractor	At end of construction	Contractor	End of Construction Phase	ECO Report External Audit Report

## Operational Phase

Impact Management Outcome: Operational aspects						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Environmental Incident Register at reception	Owner Farm Manager	Environmental File at reception	As from the Construction Phase throughout the life span of the facility	Owner Farm Manager	Ongoing daily	Internal Audit quarterly External Yearly
Communicate Health Regime for safety of animals and employees	Farm Manager	Farm Manager Weekly training	From start of operations	Farm Manager	Weekly staff training	Record keeping
Light; signage, display boards are operational and clear	Farm Manager	Physical checking	Weekly checks & maintenance	Farm Manager	Weekly checks and maintenance	Record keeping
Communicate best route for deliveries to minimise dust generation	Farm Manager	Communicate when placing an order	At time of ordering stock i.e. feed; coal; day old chicks	Farm Manager	When making orders	Record keeping
Communicate speed restrictions to delivering companies	Farm Manager	Communicate when placing an order	At time of placing an order	Farm Manager	When making orders	Record keeping
Communicate bio-security rules to delivery companies	Farm Manager	Communicate when placing an order	At time of placing an order	Farm Manager	When making orders	Record keeping
All houses to be checked twice a day for mortalities	Farm Manager Staff	Physical walk through	Daily in the morning and afternoon	Farm Manager Staff	Daily	Record keeping
Mortalities to be removed to refrigeration pending removal	Staff working in the animal houses	Physical removal and transferring mortalities to refrigeration	Twice a day as and when mortalities are encountered	Farm Manager Staff	Daily morning and afternoon	Record keeping
Ablution facilities to be disinfected and provided with warm water and soap for staff	Farm manager Staff	Physical clean down and replenishing of soap	Daily in the morning and in the afternoon	Farm Manager Staff	Daily morning and afternoon	Record keeping
All access points to have foot baths	Farm Manager	Physical filling and checking	Twice per day	Farm Manager Staff	Daily	Record keeping
Timeously notify 3 <sup>rd</sup> party users of the animal waste on date that waste must be removed from site	Farm Manager	Call and arrange for removal	As and when clean-out is contemplated	Farm Manager	When cleaning out	Record keeping
All old bedding and manure to be removed from site upon clean-out – no stock piling to occur	Farm Manager	Physical collection and removal from the houses for old bedding	As and when clean-out is being done	Farm Manager	When cleaning out	Record keeping
Implement as secure fly spray regime to combat flies	Farm Manager Farm Vet	Add additives to the feed as prescribed	Weekly operation	Farm Manager Company Vet	Weekly	Record keeping
Use contact spray on outside of the houses to combat flies	Farm Manager Farm Vet	Spray down as prescribed by the company Vet	Weekly operation	Farm Manager Company Vet	Weekly	Record keeping
Undertake daily farm area clean-up of rubble	Farm Manager Staff	Physical walk through	Daily pick-up	Farm Manager	Daily	Record keeping
Ensure rubble sorted at source for recycling purposes	Farm Manager Staff	Physical sorting as and when rubble is collected	Daily	Farm Manager Staff	Daily	Record keeping
Ensure weekly removal of waste to landfill	Farm Manager	By vehicle to the landfill	Once a week to landfill	Farm Manager	Weekly	Record keeping
Ensure waste removal is done against receipt	Farm Manager	Person taking waste must request a receipt	When waste goes to landfill	Farm Manager	Weekly when removal is done	Record keeping
Waste bins to be disinfected once a week	Farm Manager	Physical wash down and	Weekly at least once	Farm Manager	Weekly	Record keeping

	Staff	disinfection inside				
<b>Impact Management Outcome: Prescribed Standards &amp; Practices</b>						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	<b>Responsible Person</b>	<b>Method of implementation</b>	<b>Timeframe for implementation</b>	<b>Responsible person</b>	<b>Frequency</b>	<b>Evidence of compliance</b>
Ensure Health & Safety and Bio-security rules communicated to staff Sign-off on record	Farm Manager	Staff training and sign-off of training	From start of operations	Farm Manager	Weekly training	Record keeping sign-off on training
Internal Audit of aspects as contained in the approved EMPr	Farm Manager	Record keeping of audits undertaken	From start of operation	Farm Manager	Quarterly	Record keeping
Undertake internal audit quarterly and external audit once a year	Farm Manager EAP	Records of audits on file	From start of operations	Farm Manager EAP	Internal quarterly External Yearly	Record keeping
Ablution facilities must be sanitised and kept clean – service twice a day	Farm Manager	Check and record keeping	From start of operations	Farm Manager	Daily morning and afternoon	Record keeping
Coal bunkers must have either roof or tarpaulin	Farm Manager	Physical check	From start of operation	Farm Manager	Daily	Part of regular audit

<b>Impact Management Outcome: Operational compliance</b>						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	<b>Responsible Person</b>	<b>Method of implementation</b>	<b>Timeframe for implementation</b>	<b>Responsible person</b>	<b>Frequency</b>	<b>Evidence of compliance</b>
Quarterly external audits in 1 <sup>st</sup> year of operations	Owner Farm Manager	External audit with full report	Once operations start	Owner Farm Manager	Quarterly	Report and findings on file
After 1 <sup>st</sup> year only yearly external audits	Owner Farm Manager	External audit with full report	After 1 year of operations	Owner Farm Manager	Yearly	Report and findings on file

<b>Impact Management Outcome: Operational Activities</b>						
<b>Impact Management Actions</b>	<b>Implementation</b>			<b>Monitoring</b>		
	<b>Responsible Person</b>	<b>Method of implementation</b>	<b>Timeframe for implementation</b>	<b>Responsible person</b>	<b>Frequency</b>	<b>Evidence of compliance</b>
Waste must be containerised and not be left outside to create problems	Owner Farm Manager	Daily checks Daily removal	From the onset of the operational phase	Owner Farm Manager	Daily	Internal Audits Yearly external audit
Waste separation for ease of recycling	Owner Farm Manager	Daily checks	From the onset of the operational phase	Owner Farm Manager	Daily	Internal Audits Yearly external audit
Exit / entrance points must provide sanitising and footbaths	Owner Farm Manager	Equipment at the gates	Prior to the onset of operational phase	Owner Farm Manager	Daily	Internal Audits Yearly external audit
All exit / entrance points must have correct signage	Owner Farm Manager	Signage at the gates	Prior to the onset of the operational phase	Owner Farm Manager	Daily	Internal Audits Yearly external audit
Proper ablution facilities and showers for staff on site	Owner Farm Manager	To be constructed during the construction phase	Must be available from onset of the Operational Phase	Owner Farm Manager	Daily	Internal Audits Yearly external audit
Exterior lights must be down-lighter to prevent light pollution	Owner Farm Manager	To be installed during construction phase – ongoing maintenance	During construction phase	Owner Farm Manager	Ongoing maintenance and upkeep	Internal Audits Yearly external audit

Impact Management Outcome:						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Owner / Operator to sign acceptance of the EMPr and copy on file	Owner Farm Manager	Signed documents on file	Before construction and operational phase	Farm Manager Owner	Quarterly	Documents of file
File with copy of approved EMPr on site	Farm Manager	Copies on file	Before construction and operational phase	Farm Manager	Quarterly	Documents of file
Incident record keeping on file on site	Farm Manager	Record keeping on file	Before construction and operational phase	Farm Manager	Quarterly	Documents of file
Audit after 1 year and record on file	Farm Manager External Auditor	Records on file	At end of first year of operations	Farm Manager Owner to arrange	Yearly	Documents of file

Impact Management Outcome: Implementation of impact management actions – Operational Phase						
Impact Management Actions	Implementation			Monitoring		
	Responsible Person	Method of implementation	Timeframe for implementation	Responsible person	Frequency	Evidence of compliance
Uphold the dictates of the approved EMPr	Owner Farm Manager	Signed EMPr and acceptance by signature	From time of operations	Owner Farm Manager	Quarterly for 1 <sup>st</sup> year then yearly	Documents on file
Monthly external audits	Owner EAP	Full audit with report	From time of operations	Owner Farm Manager EAP	Monthly	Records on file
Guidance and remedies where required	EAP	Written Report	After each audit	EAP Farm Manager	Monthly or as and when required	Record on file
Record keeping of all findings and remedies suggested	Owner Farm Manager	Reports on file	After each audit	Owner Farm Manager	Monthly	Records on file

**Additional Aspects to be added:**

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**NOTE: The EMPr is a living document and allows for additions to be made as and when circumstances arise that demand changes or additions. ALL additions or changes must be documented and properly dated in order to maintain a date line and proper paper trail.**

- This EMPr has been accepted by the developer of the proposed activity for on behalf of .....and will be circulated, against signature to all contractors involved in the construction process.
- Such signed documents will be kept on file for audit purposes by the relevant authorities.

**Signed for and on behalf of the developer:**

_____ Signature	_____ Name	_____ Date
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EAP (RP Colyn / EAPSA 2019/1358)

## Aspects for Environmental Compliance – CONSTRUCTION

ITEM	YES	NO
Is the construction site clearly demarcated?		
Is there a clearly demarcated barrier between the existing infrastructure and the new area to indicate where construction workers may not go?		
Is there a footbath and disinfectant for all arrivals on site?		
Is the site office in place?		
Is there a bulk skip on site?		
Are there bins for waste separation on site?		
Has staff received training on environmental issues?		
Are ablutions in place and being serviced?		
Has an area for cement wash down been set aside?		
Has an area been demarcated for the keeping of building sand; stone; cement etc?		
Has an area been demarcated where staff may prepare food and tea / coffee?		
Is the environment clear of rubble and waste?		
Are all documentation i.e. EA; EMPr; Contractor Acceptance docs on file and on site?		
Has an Incident Record File been opened and kept on site?		
Are copies of waste removal receipts kept on file on site?		
Are copies of ablution services kept on file on site?		
Are all excavations / trenches safe and clearly marked?		
Are the weekly audits and monthly external audits on file and on site?		

## Aspects for Environmental Compliance - OPERATIONAL

ITEM	YES	NO
Is the environmental file with all authorisations on site?		
Is traffic speed being regulated?		
Are delivery trucks following the best possible routes via tar roads to minimise dust?		
Are vehicle activities restricted to day light hours?		
Is the site free of waste?		
Is daily site clean-up being done?		
Is the area clear of animal waste?		
Are the take-off agreement in place and on file?		
Are mortalities kept refrigerated pending removal?		
Are mortalities removed in enclosed containers?		
Is the operation following a fly spray regime?		
Is the operation adding medication to feeding to prevent fly larvae from developing?		
Is the operation following a bio-security plan?		
Are access point to the premises provided with foot baths and sanitiser?		
Are ablution facilities clean and serviced?		
Are the coal bunkers cover and kept closed to prevent ingress of water?		
Are the coal ashes kept covered pending removal to landfill?		
Is internal audits being undertaken by the farm manager?		
Is external audits being undertaken by the independent auditor?		
Coal bunkers – roof or covered?		
Coal bunkers – no water ingress?		
Coal Ash bunkers – available to accept ash from the heating system?		