

ENVIRONMENTAL IMPACT ASSESSMENT

REPORT  
(EIAR)

July 2024  
Prepared by:  
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Enfield Broiler Breeders Limited  
Unit B Maynooth Business Campus  
Straffan Road  
Maynooth  
Co. Kildare  
Eircode: V23 W5X7

Site Address:  
Gorteen  
Broadford  
Co. Limerick  
P56 VH76

July 2024  
Planning Ref: 94/1227  
LA011595

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*NON-TECHNICAL SUMMARY*

The Environmental Impact Assessment Report (EIAR) has been prepared by Ceres Consulting on behalf of Enfield Broiler Breeders LTD, Unit B, Maynooth Business Campus Straffan Road Maynooth, Kildare, W23 W5X7, Ireland in respect of the application for an Integrated Pollution Control License for their poultry farm in Gorteen Broadford Co. Limerick P56 VH76.

The E.I.A.R. has been prepared by Ricky Roycroft, B.Sc Agri. Bus. (Hons) with the assistance of persons and bodies referred to hereafter.

The E.I.A.R. has been completed in accordance with the Planning and Development Act 2000 (as amended), Planning and Development Regulations 2001 – 2015 (as amended) and the Protection of Environment Act 2003 (as amended).

The existing poultry farm operated by the applicants is located in a rural area in Co. Limerick. The poultry farm has been operated by the applicants since 1998. The existing poultry houses were built in circa 1994/95 and have been in operation since.

There are no proposed developments in this application. The capacity of the site is proposed to be increased to 70,000 birds, exceeding the threshold required for the preparation of an Environmental Impact Assessment Report as per S.I. 600 of 2001 (Planning and Development Regulations 2001), Schedule 5 Part 2 1

(e) (i) as follows:

**“Installations for intensive rearing of poultry not included in Part 1 of the Schedule which would have more than 40’000 places for poultry”.**

As all manure is to be moved off-site by a registered contractor in line with the requirements of S.I. 605 of 2017 (as amended).

The proposed activity will be located in Gorteen, Broadford, Co. Limerick. The operation of the proposed activity will be integrated with the operation of the existing farming activities.

This E.I.A.R. will be submitted to the EPA as part of the license application process.

The application site lies within the catchment area of the River Bunoke which lies 121m East of the site. The EPA have defined the River Bunoke as moderate to good ecological status for much of its course. Under the requirements of the Water Framework Directive, this is less than satisfactory, and this status must be improved. Storm water from roofs and clean yards will discharge to purpose-made land drainage. The storm water discharge points will be regularly checked, inspected, and monitored. There will be no discharge of any soiled water or any effluent from the site to any watercourse or to groundwater. Soiled water will discharge into existing underground holding tank with a capacity of 248.39m<sup>3</sup> for spreading on client's landholdings of 10.92 ha.

The site in question is located in a rural area within the townland of Gorteen, Broadford, Co. Limerick. The site is 10.92 hectares in area, and it is accessed via the L1311 road. It is c. 5 km NW of Broadford and c. 5 km SE of Killeedy, Co. Limerick. The activity on the farm is, and will be, a poultry farming activity appropriate to the area and consistent with the Co. Limerick development plan.

The location of the site is screened by existing land topography and the existing hedgerows and trees and is well integrated into the existing landscape.

The poultry houses are similar in design principles to most existing poultry houses. The type of houses are a simple closed building of concrete/steel/prefabricated panel construction, thermally insulated with forced computer-controlled ventilation system and artificial lighting. Birds are housed on a solid floor, with litter (wood shavings/chopped straw) spread over the entire floor area. Automated feeding and drinking systems are proposed and are in line with Best Available Techniques (BAT) requirements. A button nipple drinking system will be used in the proposed house as this is the most efficient type of drinking system and will ensure that the manure/litter remains as dry as possible.

Only the most efficient systems of poultry husbandry are operated on this farm and are well maintained and serviced so as to ensure that they are operating to maximum efficiency.

The process on this farm is be similar to other such houses in this part of Co. Limerick and will be in line with the requirements of the Department of Agriculture, Food & Marine and Bord Bia. The applicant will be responsible for the feeding, management and husbandry of the birds and for ensuring that all of the required records are maintained.

The stock for this farm will be brought in at approx. 18 weeks old and will remain in the houses until approx. 14 months of age. The houses operate as an all in-all out basis to maintain a single age profile, and to maintain the health status of the birds.

The poultry manure from this farm is cleaned out by the applicant and removed of site by Kelly Bros on behalf of the applicant. The applicant provides the equipment and labour for subsequent washing/disinfecting the facility.

Kelly Bros are responsible for arranging transport of this material to Riverfield Farms Ltd. The estimated manure production will be a total of c. 5400m<sup>3</sup> per annum.

Soiled water is collected in dedicated soiled water collection tanks located on site. This soiled water will then be applied to the adjoining landholding, in accordance with S.I. 605 of 2017 (as amended).

Emissions to air from the site are and will be small and are attributable to the animals that are on the site. The odour associated with the site of the cumulative capacity of the existing house, proposed house and adjacent poultry houses do not and will not cause significant annoyance and will not interfere with amenity outside the boundary of the site. Odour emissions from the site may be increased at times when birds and manure is being removed from the site, however this occurs for only a short period in every cycle, which are approx. once every 44 weeks.

A small proportion of birds maintained on the farm die prematurely. These carcasses will be stored in a covered sealed container on site, awaiting collection by an authorized contractor. Wards Waste is an authorized contractor who can regularly remove these carcasses and any other such material to an authorized animal by- products plant in compliance with existing requirements.

The potential of the proposed development, either independently and/or when assessed cumulatively with other developments in the area, for either direct or indirect, short, medium or long term adverse impact on environmental parameters is negligible, if any, because:

Of the nature and scale of the proposed development;

- Cycles are only once every 44 weeks (approx.)
- Wastes are removed from the site by authorized waste contractors for either disposal or use elsewhere.
- All manure is to be removed off site by an experienced contractor, and,
- All soiled water will be collected in dedicated soiled water collection tanks pending its application to the applicant's landholding.

## *INTRODUCTION*

Ceres Consulting has been appointed by Enfield Broiler Breeders LTD to prepare an Environmental Impact Assessment Report (EIAR) in support of an application at, Gorteen, Broadford, Co. Limerick.

The site is c. 5 km NW of Broadford and c. 5 km SE of Killeedy, Co. Limerick. Existing development on site consists of 8 existing poultry houses with ancillary buildings and equipment.

### *1.1 Background*

Enfield Broiler Breeders Ltd are requesting permission to increase capacity in an existing poultry unit with a capacity to hold 70,000 free-range birds.

The existing poultry houses are currently carrying 39,000 birds and the proposal is to increase this to a 70,000 bird house for free-range birds.

The project site is a privately owned poultry farm supplying poultry Enfield Broiler Breeders Limited.

The proposed increased capacity at Enfield Broiler Breeders Limited poultry growing operation will help meet the growth in the poultry sector. The current project involves the completion of an Environmental Impact Assessment Report clarifying the nature of all current and proposed impacts that the poultry farm currently has and will have on its surrounding environment.

The Environmental Impact Assessment Report will be submitted to Limerick City & County Council in support of this application site at, Gorteen, Broadford, Co Limerick.

### *1.2 Site and Surrounding Lands Development*

The total area of the site, incorporating existing and proposed areas is 10.94 hectares

The site at, Gorteen, Broadford, Co. Limerick is located within the town land of, Gorteen, Broadford c. 5 km NW of Broadford and c. 5 km SE of Killeedy, Co. Limerick.

The site is in a rural farmland area which is sparsely populated.

The nearest occupied dwelling house is a distance of approximately 127m to the South East of the site. The next nearest occupied domestic dwelling is c. 183m to the South East of the poultry house.

The site boundary is marked by a combination of hedgerows and fencing. The existing poultry growing facility is situated in a natural dip in the landscape and is largely screened from views in all directions due to the nature of the topography.

The proposed development is not visible from the local L1311 road approaching from the South.

The existing entrance from the L1311 will remain and serve as an access point for the proposed development.

### *1.3 Planning and Consents History*

Planning Application in which the current and proposed activity is based on 94/1227.

To ensure a comprehensive assessment was completed which included all existing, permitted and proposed developments at Enfield Broiler Breeders Limited facility, these developments have been assessed as existing and operational structures and have formed part of the baseline assessments completed to inform this EIAR.

#### *Regulatory Requirement for an EIAR*

Proposed activity will increase from 39,000 birds to 70,000 birds for this site.

The proposed development exceeds the threshold required for the preparation of an environmental Impact Assessment Report as per S.I. 600 of 2001 (Planning and Development Regulations 2001, as amended) Schedule 5 Part 2 1 (e) (i) as follows:

**“Installations for intensive rearing of poultry not included in Part 1 of the Schedule which would have more than 40’000 places for poultry”.**

### *1.4 Environmental Impact Assessment Regulations*

Environmental Impact Assessment (EIA) Requirements derive from European Communities Directive 85/337/EEC (as amended by Directives 97/11/EC and 2009/31/EC) and as codified and replaced by Directive 2011/92/EU of the European Parliament and the Council on the assessment of the effects of certain public and private projects on the environment and as amended in turn by Directive 2014/52/EU.

In addition to transposing the mandatory requirements which apply to Annex I projects Ireland chose to set thresholds for each of the project classes in Annex II. The thresholds were set at levels to distinguish between those projects, which by virtue of his nature, size or location would be likely to have a significant effect on the environment and those, which would not.

Irish implementing legislation addresses the possible need for EIA below the specified thresholds. In summary these require the carrying out of EIA where the competent authority considers that a specific development would be likely to have a significant impact on the environment. In light of the approach adopted by Ireland in relation to Annex II there should only be a limited need for EIA below the thresholds specified.

The Irish EIA system implements the EU Directive through the integration of its requirements into the land-use planning consent system and several other development consent systems covering for example offshore development, roads / motorway construction, light rail systems and the laying of oil and gas pipelines. Requirements on development which may arise from the provisions of legislation such as the European Communities (Natural Habitats) Regulations 1997, the National Monuments Acts 1930 to 1994 and Wildlife Acts 1976 to 2000 are also significant.

The EIAR is drafted with particular regard to the aforementioned directives and the Planning Developments Acts 2000 (as amended), the Planning and Development Regulations 2001 – 2015 and in particular Article 94 and Schedule 6 of the 2001 Planning and Development Regulations, the Protection of Environment Act 2003, and section (1) (b) ANNEX iii of the Directive 2014/52/EU.

### *1.5 Site Description*

All systems are maintained and serviced so as to ensure that they are operating to maximum efficiency..

Free-range rearing design principles follow a simple template and have not changed significantly over recent years. The type of poultry housing proposed on this farm is designed for Free-range rearing and comprises a simple closed building of concrete/steel/prefabricated panel construction on an impervious concrete base, thermally insulated with a forced computer-controlled ventilation system and artificial lighting. Birds are housed on a solid floor, with litter (wood shavings / chopped straw) spread over the entire floor area. Automated feeding and drinking systems are proposed and are in line with Best Available Techniques (BAT) requirements. A button nipple drinking system will be used in the proposed house as this is the most efficient type of drinking system and will ensure that the manure/litter remains as dry as possible.

All manure is to be moved off-site by a registered contractor in line with the requirements of S.I. 605 of 2017. The measures outlined as BAT for the poultry sector, (in the Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for intensive rearing of Poultry and pigs), and in particular this type of production include:

- *The naturally ventilated house with a fully littered floor and equipped with non-leaking drinking systems, or*
- *The well insulated fan ventilated house with a fully littered floor and equipped with non-leaking drinking systems.*

### *1.6 Operation of the Proposed Development*

**Operating hours:** The main activities at this farm occur during normal working hours between 06.00am and 20.00pm. Stock inspections in line with normal farming practices are and will be carried out every day including weekends and holidays. Automatic feeding and ventilation systems operate on a 24-hour basis and in addition, essential activities may be carried out outside of core working hours.



**Feeding:** All birds will be fed by means of an energy efficient, low maintenance, automated feeding system. Feed will be moved from the external feed storage bins into the house. Each diet is tailored to meet the nutritional requirements for protein/ amino acids, energy, minerals and vitamins at that stage of production and to minimise nutrient excretion. This will ensure that birds are healthy and contented and are reared properly so as to produce healthy efficient birds. Total feed consumption/annum is expected to be c. 3000 t. All feed to be used on this farm will be supplied from specialised feed suppliers.

**Production Cycle:** The applicant is responsible for the maintenance and preparation of the house, management of the birds, feeding, water and ventilation systems and for ensuring that all of the required records are maintained for each flock.

The production cycle on the farm is c. 18 weeks to 62 weeks with 4-6 weeks empty after every batch.

Site and its' operation are both Bord Bia and Red Tractor Certified

The following house checklist and flock inspection checklist are included as part of this standard:

### **House Preparation Checklist**

Preparation of the House:

- Spread fresh bedding evenly to cover floor.
- The temperature must be stable.
- Place independent thermometers around the house with at least two of them at bird level, to monitor uniformity of temperature.
- Provide fresh, clean water to the birds immediately on arrival
- Feed Rations must also be available.
- Feeders and drinkers must not be placed directly under a heat source.
- Before the birds arrive, carry out a final house check to ensure that temperatures are at the correct levels and that there are no water leaks.



**Management of Organic Fertiliser:** The poultry manure from this farm will be cleaned out by an authorised contractor Kellys Bros and removed of site by an authorised contractor Kelly's Bobcat Services, on behalf of the applicant.

The applicants provide the machinery and labour necessary for washing/disinfecting out the houses: Kellys Bros are responsible for arranging transport and are registered with the Department of Agriculture for the transport of Animal By-Products. The estimated manure production as a result of the proposed development will be c. 5400 m<sup>3</sup>/annum.

As previously detailed all manure will be moved off-site by an approved registered contractor in compliance with S.I. 605 of 2017, i.e., the regulations that have given effect to the Nitrates Directive in Ireland.

**Management of Soiled Water:** Soiled water from the proposed development where applicable will be collected in a dedicated soiled water tanks, located on site. Estimated soiled water production will be c180m<sup>3</sup>/annum. This soiled water will then be applied to the applicant's farmland c. 10.92 hectares in line with S.I. 605 of 2017 (as amended).

**Biosecurity:** To minimise the risk of personnel bringing infection into the poultry farm all visitors are banned with the exception of essential personnel such as veterinarians and servicemen. All visitors must sign a register and use appropriate disinfectant procedures. Designated lorries are to be used to deliver feed to the farm. A vital part of maintaining health within the unit is a necessity to fully clean out after each flock is removed. This avoids the build-up of bacteria and viruses which challenge the incoming stock and which may affect his production efficiency. Once litter has been removed by the designated contractor all internal surfaces are washed down using a power washing system and then disinfected.

### *1.7 The need for the development*

As described in the introductory section of this document, the development comes about as a result of the need for the facility to supply a quality product to Enfield Broiler Breeders Limited and a need to ultimately meet local and national food production requirements.

The development is currently operating to its capacity of 39,000 birds and is able to meet the highest standards in terms of Animal Welfare.

Enfield Broiler Breeders Limited has operated this site since 1998 to a very high standard.

Enfield Broiler Breeders Limited and their poultry operation are regarded as a valuable addition to the local economy and its existence is vital to supporting commercial entities, families and services locally.

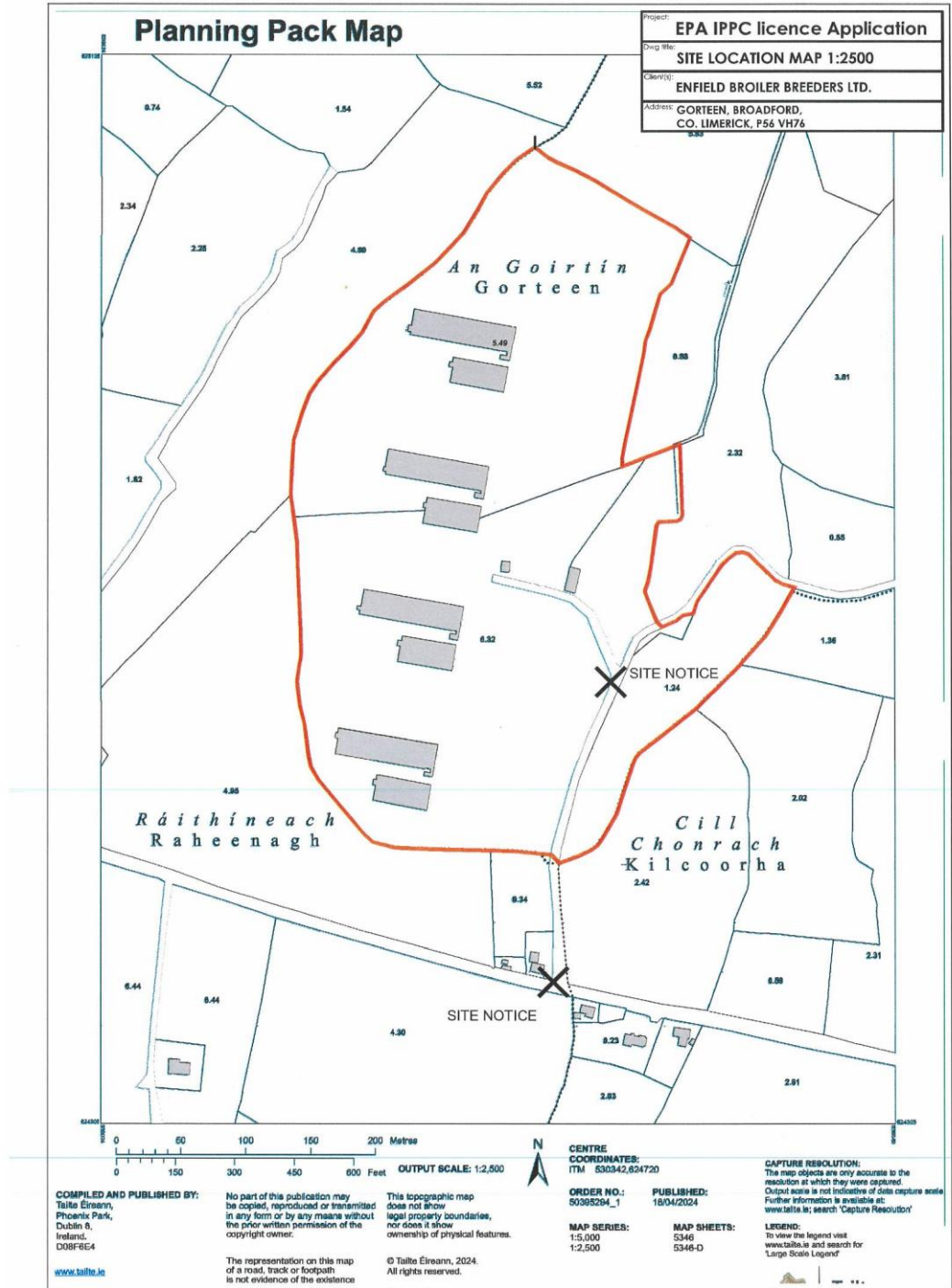


Figure 1: Site Location

## 2.0 SCOPING AND CONSULTATION

### 2.1 Introduction

This section deals with the process, which endeavoured to identify and emphasise the issues which are likely to be important in the EIA and to eliminate those which are not. In general, the scope of the EIA relative to the project has been drawn up by the professionals on the project team.

### 2.2 Consultation

The scoping of this E.I.A.R was carried out by the design team in conjunction the applicant and was completed in line with previous submissions to the Environmental Protection Agency, Limerick City & County Council.

Other organisations and bodies consulted directly / indirectly include:

- Department of Agriculture, Food and the Marine
- Department of the Environment, Community and Local Government
- National Parks and Wildlife Service
- Geological Survey of Ireland
- Met Eireann
- Environmental Protection Agency

### 2.3 Scoping

Scoping is an essential part of the preparation of an EIAR as it ensures that all potential and important significant impacts on the receiving environment are taken into account at the earliest possible time. Scoping by its very nature will evolve with the project as design changes are made and more detailed information on environmental issues and design comes to hand.

However, as an early-stage tool it provides relevant information on the most important potential impacts of the project, which will have to be addressed in the EIA.

The European Union (Environmental Impact Assessment) Regulations, (as amended) and directive 2014/52/EU prescribe a list of area of the environment that must initially be addressed in any E.I.A.R. These areas may comprise of:

- Population and Human Health
- Bio-Diversity (Flora & Fauna, Special Policy Areas etc.)
- Land and Soil
- Water
- Air
- Climate
- Landscape
- Material Assets
- Traffic
- Architectural and Archaeological Heritage
- Cultural Heritage
- The Inter-relationship between the factors listed above.

It is necessary to encompass each of these sections of the environment with respect to the impacts that the proposed development will have on them. The purpose of this exercise is to shape and mould the E.I.A.R. so as not to overlook any impacts that may be significant and to focus on the issues that have potential for environmental impact.

In this case the above criteria were studied and prioritised, ensuring that particular attention was paid to the issues that are directly relevant to the impact of the proposed development. A Matrix has been developed so as to assess the magnitude and nature of any potential impacts at the scoping stage. Resulting from this preliminary assessment, only those issues identified as significantly potentially impacted by this development have been assessed in detail in this E.I.A.R.

## 2.4 Impacts

The potential impacts that the proposed development could impose on each aspect of the environment were subdivided into the following categories and analysed separately on the following basis:

- Potential impacts if the proposed activity does not proceed.
- Potential impacts during operational phase of the proposed development.

	No Development	Operational Phase
Population / Human Health	#	✓
Biodiversity (flora)	#	#
Biodiversity (fauna)	#	#
Land & Soil	#	✓
Water	#	#
Air	#	#
Climate	#	#
Ambient Noise	#	#
Cultural Heritage	#	#
Landscape	#	#
<i>Material Assets</i>		
Traffic	#	X
Land Use	#	✓
Employment	X	✓

**Table 1: Potential Impacts**

### **Key:**

#	no impact		
X	slight Negative Potential Impact	✓	Slight Positive Potential impact
XX	Moderate Negative Potential Impact	✓✓	Moderate Positive Potential impact
XXX	Significant Negative Potential Impact	✓✓✓	Significant Positive Potential impact

For the purpose of assessment, the main criteria that should be included when evaluating the potential impact of proposed activity on the environment.

- Knowledge of the environment in which the proposed activity is to be sited.
- Knowledge of the processes of the proposed development
- The emissions to air.
- The emissions to groundwater
- Characteristics of the effluent to be treated on site.
- The emissions to surface waters (if any).
- The ambient quality of receiving waters.
- Availability of contractors to transport and treat wastes / by-products sent off-site.

### 3.0 ALTERNATIVES

#### 3.1 Introduction

The Planning and Development Regulations 2001 specifies the information to be contained within an EIS. Schedule 6 1(d) specifies that an EIS shall include "*An Outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice taking into account the effects on the environment.*"

Therefore, as part of the initial planning stages for the proposed licence, some alternatives were evaluated for the development of Enfield Broiler Breeders Limited operation. These alternatives included other sites, other uses for the site chosen and process changes taking account of environmental impacts.

#### 3.2 Alternative Considerations

On evaluating the existing facility, it was deemed that the existing facilities have the capacity to accommodate extra birds without having an impact on their performance or welfare.

The house type is found to be working satisfactorily as regards day to day running and its conditions for the birds. No significant problems of operation have been encountered in the running of the proposed house type.

#### 3.3 Alternative Sites

The current site of the proposed development has already been in existence in its current form under Enfield Broiler Breeders Ltd since 1998. The site itself is geographically located in a rich agricultural hinterland adequately serviced by its supply base and by the processing plant for its produce. With this in mind, the applicant chose this site for the following reasons.

- The area of the farm holding itself to an extended poultry unit.
- The area has no signs of over development either from a domestic or agricultural perspective. An existing agricultural entrance onto public road can be utilised.
- Resources already available on site.
- Staff are familiar with the running the site
- Existing drainage system capable of facilitating the proposed activity.

No more suitable alternative sites are proposed or have been evaluated in the preparation of this report.

#### 3.4 Alternative Processes

The production of chickens has been extensively developed in the country and throughout Europe for many years and developmental change has been minimal in general. The processes are in essence the same and it is clear that alternative processes would not be in adherence with the accepted norms so no alternative processes have been addressed. The management of raw materials and utilities are constantly being reviewed with a particular focus on sustainability and energy efficient initiatives for the operations and for the management of the onsite generated waste materials.

#### 4.0 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT

The magnitude of the impacts outlined in the chapters which follow take into account the guidelines given by the EPA and those scales used in other EIAR documents for significant developments in this country. A broad outline of the scale of impacts is given in the table below. Where mitigation in the form of design measures have been suggested throughout the evolution of the EIAR, these have been incorporated into the site operation as far as is possible from an engineering perspective.

#### General Criteria used to quantify the Potential Impacts of the Proposed Scheme:

Degree of Impact / Significant Level		Definition of Impact
Profound	Significant Impact	An impact, which obliterates Sensitive characterization
Major		An impact, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
Moderate		An impact that alters the character of the environment in a manner that is consistent with existing and emerging trends
Slight		An impact, which causes noticeable changes in the character of the environment without affecting its Sensitivities
Not Significant	Neutral or imperceptible impact	An impact which does not change the quality of the environment is capable of being measured but without noticeable consequences and causes changes in the character of the environment which are not significant or profound.

*Table 2: Potential Impacts Criteria*

#### 4.1 Effects on Landscape:

The proposed activity site is typical of the local topography of the area. It is located in a naturally secluded area in the landscape and as such is generally screened from view. The proposed development will be screened from view by the existing land topography, hedgerows, trees, distance from the L1311 local road.

The location of the proposed activity is screened by the existing land topography and the existing hedgerows and trees will mean that the activity has been and will continue to be well integrated into the existing landscape. The site is set back approx. 110m from the L1311 road there are no sensitive receptors within the vicinity of the proposed development.

It is anticipated that given no construction or developments are planned, there will be no impact in an overall landscape context. The continued management of the hedgerows and the maintenance of the poultry houses will not have significant impact in terms of landscape and visual impact.



#### *4.1.1 Construction Impacts*

Not Applicable as no new activity will be taking place as buildings are already constructed.

#### *4.1.2 Mitigation*

It is proposed to adhere to good working practices and dust mitigation measures to ensure that the levels of dust generated will be minimal and are unlikely to cause any environmental nuisance.

Hard surface roads shall be swept to remove mud and aggregate materials from this surface. Any un-surfaced roads shall be restricted to essential traffic only.

Public roads outside the site shall be regularly inspected for cleanliness and cleaned as necessary.

#### *4.1.3 Monitoring*

There is no proposed monitoring for dust or odour at the poultry operation. The site is set back approx. 110m from the L1311 and as such there are no sensitive receptors within the vicinity of the proposed development. If any complaints are received, a follow up investigation will be initiated. This will be initiated as soon as feasible and all results made available to the local authority and any relevant bodies for inspection.

In the event that dust or odour from the proposed development is creating an environmental nuisance an ambient dust deposition survey will be carried out by an air quality specialist and mitigation measures will be developed to eliminate the nuisance.

### **4.2 Effects on Human Beings**

The proposed activity will add to the economic activity on the farm, with consequent “trickle down” positive effect in the region and the local community, particularly with regard to ongoing employment thus helping to assist the population of the local area.

Significant effects on population / human health and/or human beings are not anticipated. There are no third-party dwellings close to the proposed development as to be adversely affected by or experience significant impairment of amenity due to the proposed development.

As a result of the fact that the development is in operation for some time and there have been no recent process changes, it is anticipated that there will be no new sources of impact on human beings. All of the impacts will already exist.



The proposed development is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The site is located 110m in from the local road L1311 and as such, is at a distance to mitigate negative effects from the proposed development.

There are no processes proposed which will constantly or regularly release odourous emissions from the site at nuisance levels. Fugitive odour emissions at the site will not be significant and will be limited to times at which birds/manure are being removed from the site. In so far as is possible odour emission is to be managed so as to occur at times when the effect within the site or outside it, will be minimal.

Where nuisance effects occur, people object and under statutory requirements his objections will have to be investigated and have to be corrected if found to be real and justified. This existing farming activities have not received any complaints of this nature to date.

#### **4.3 Effects on Land and Soil**

There is a potential for some positive benefits on soil on potential organic manures farmer lands as a result of the production of organic fertiliser by the proposed development.

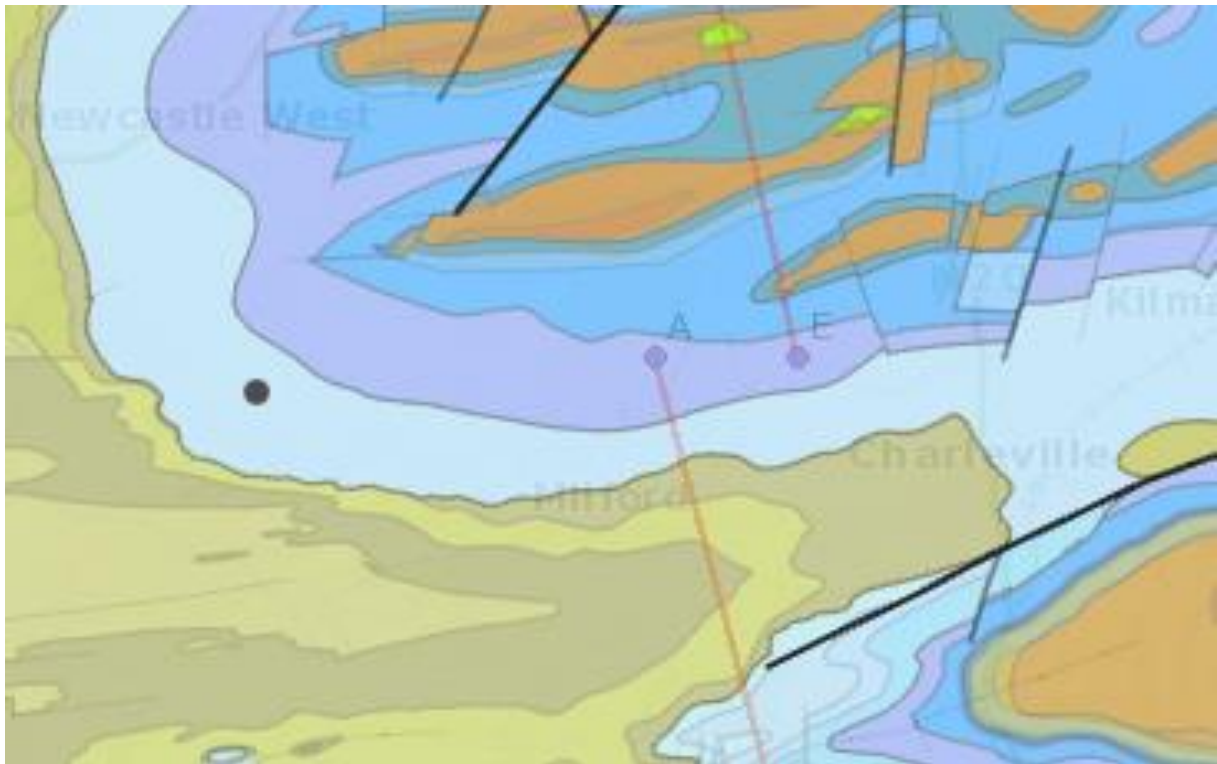
Such organic fertiliser provides a valuable addition to the soil adding nutrients not generally found in chemical fertilizer and can offset nutrient requirement which would otherwise be supplied by synthetic fertilizers.

Organic matter in soils is generally in decline, particularly on tillage farms and the use of an organic fertiliser is preferable to chemical fertiliser in maintaining adequate organic matter levels in soils. All organic fertiliser is supplied to customer farmers for use as organic fertiliser in accordance with S.I. 605 of 2017 (as amended) in response to demand.

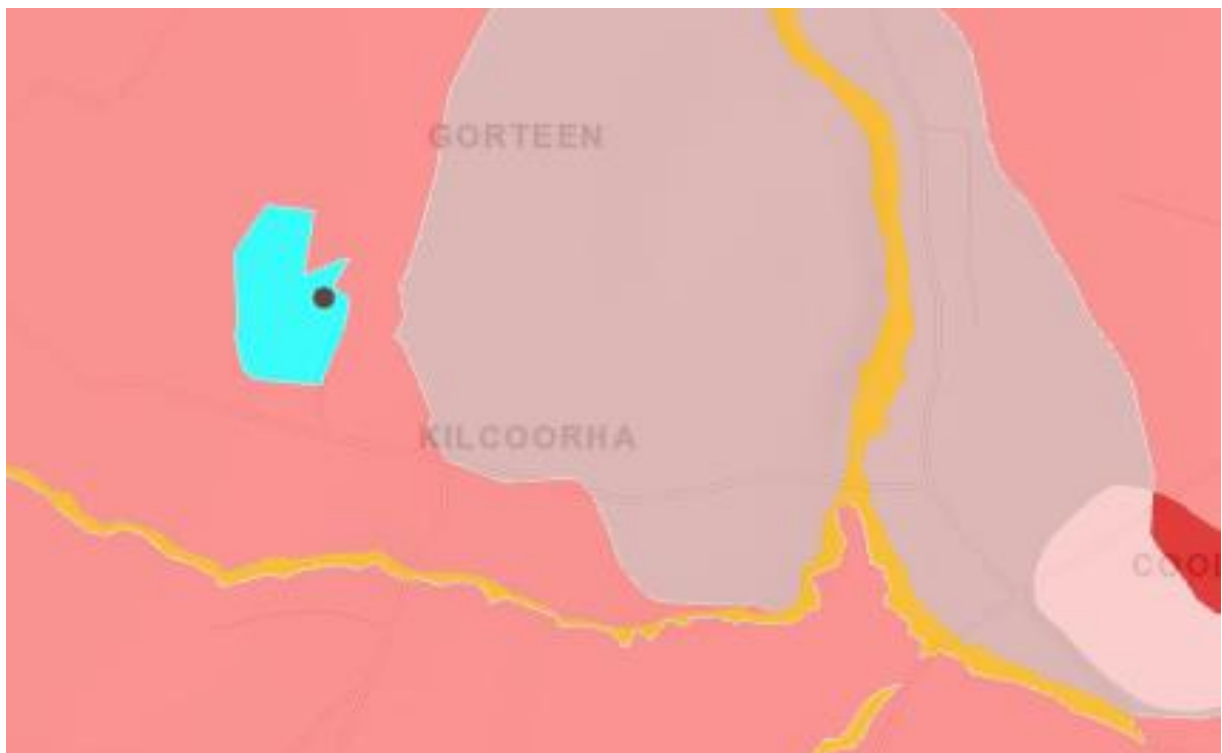
The sub soils in this area are described as till derived from Limestone on bedrock comprised of Waulsortian limestone (see Table 3: *GSI Bedrock Map* & Table 4: *GSI Subsoil Map*)

The proposal to land spread the Soiled Water will not impact negatively on the destination land once done at the correct rates and in more than 1 application in suitable weather and land conditions. All spreading of organic material must be carried out in accordance with the EPA and Dept. Of Agriculture guidelines and full traceability for such actions should be provided.

There will be no significant impacts on soil, sediment and geology via the existing development at the site.



**Table 3:** GSI Bedrock Map



**Table 4:** GSI Subsoil Map

#### **4.4 Employment**

An additional estimated 2-3 ongoing positions will occur as a direct result of the activity. Existing employment provided by the poultry farm in the areas of stock provision, feed supply and maintenance will also be maintained as a result.

#### **4.5 Settlement and Social Patterns**

No effect to existing settlement patterns is anticipated as a result of the development.

#### **4.6 Flora and Fauna – SEE Ecological Impact Assessment supplied separately**

## 5.0 Effect on Groundwater and Surface Water

Adverse effect on groundwater from the proposed development should be nil, as there will be no process discharge to ground and any minimal risk of accidental leakage or spillage of polluting liquid on the site. The proposed activity will be carried out on an impermeable concrete base, with proper storm and soiled water separation and collection facilities.

The proposed development will operate on a dry manure basis, whereby the manure will be removed from the houses at the end of each cycle and removed directly off site to recipient farmer(s) on the same day. It will be managed as dry manure thus eliminating the risk of any leak to groundwater. The only soiled water from the proposed development will arise due to washing down of poultry houses and adequate storage facilities are in place for this.

The volume of water needed for the farm once the proposed activity has been completed will be proportionate to the proposed stock levels. The existing water supply on the farm is from on-farm boreholes which will also serve the proposed activity.

Figure 3: *Groundwater Wells and Springs*. the groundwater classification appropriate to the site and the surrounding area has a vulnerability rating of Low (L) vulnerability.

Figure 4: *Groundwater/Vulnerability Map*. As the proposed activity will operate on a dry manure basis, whereby the manure will be removed from the houses at the end of each cycle and removed off site by a licenced contractor and all soiled water will be collected onsite there is minimal risk to groundwater supplies in the area of the site.

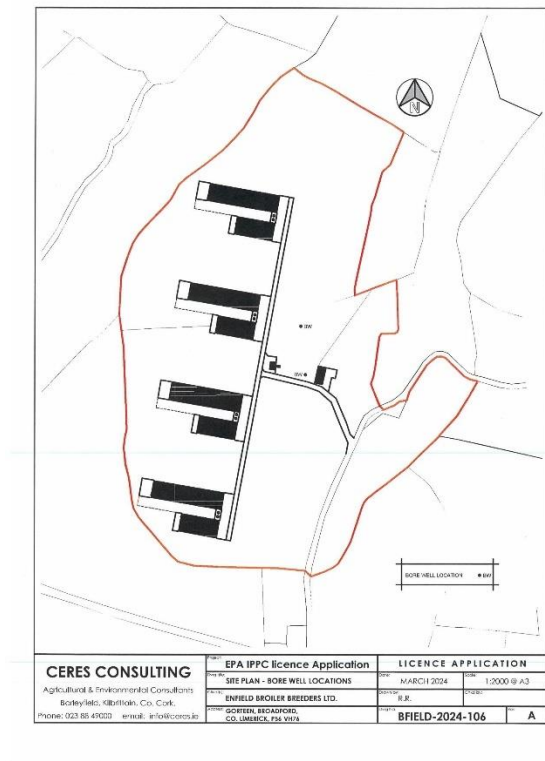
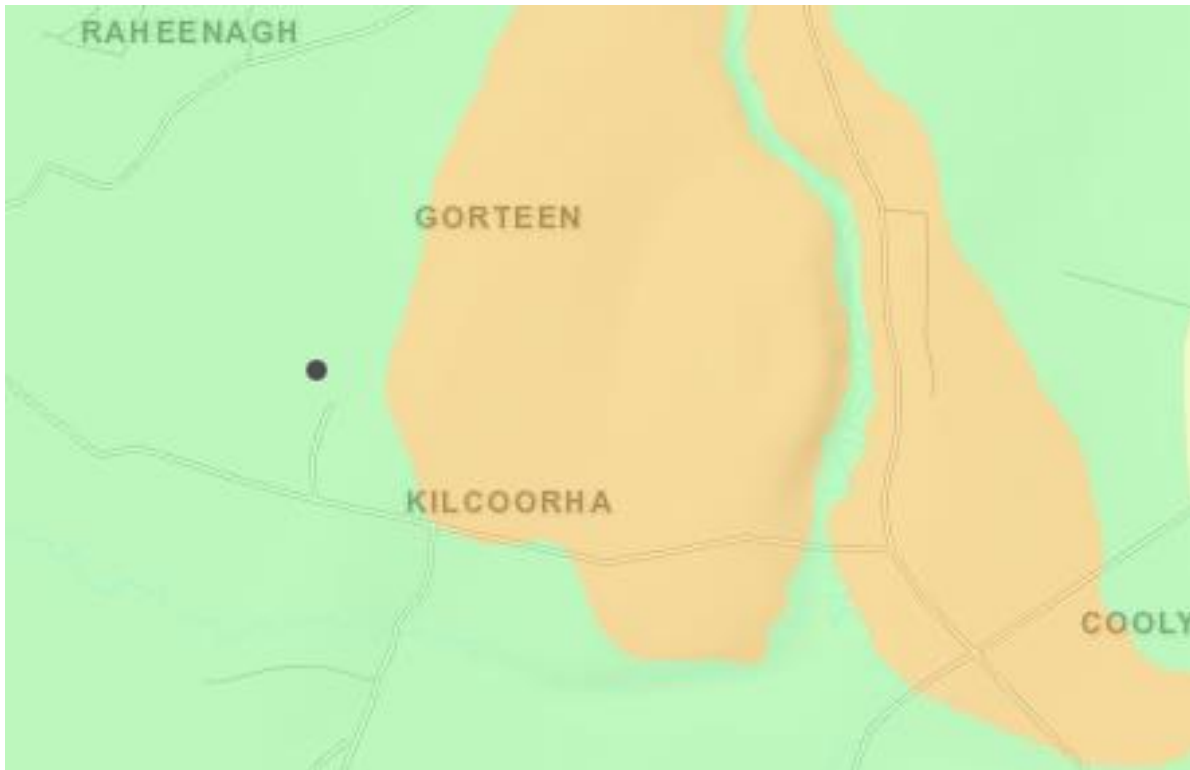


Figure 3: *Groundwater Wells and Springs*



**Figure 4:** Groundwater/Vulnerability Map

#### *5.1 Direct or accidental discharge of waste or washings*

The activity through its operations produces a proportionately large volume of washings on days when the houses are being cleaned down. The washings are directed to wash water holding tanks from where the washings or soiled waters are vacuum tankered to available lands for land spreading. It is also possible that the waste material itself (in the form of a manure @ approximately 60% moisture content) could infiltrate the groundwater sources and cause pollution however given the very dry nature of the material and the extent of the concrete hard stand areas set aside for the loading of the waste material, the risk of environmental pollution occurring is minute.

The main risks posed to groundwater and surface water from the operations will arise from accidental / emergency spillage from either the collection network for the foul materials or from the on-site tankage.

However given that cycles are approx. once every 11 months and there is sufficient storage capacity on-site meaning there is no rush to spread soiled water then we would see these risks as being very minimal.

#### **5.1.5 Mitigation Measures**

Impervious concrete is provided throughout the site where necessary to enable the full collection of surface water to the surface water collection network.

It is suggested that all provisions are made to ensure that no contaminated material is stored on a site in a fashion that may undermine the environmental security of the collection system.

All drains, guttering and other collection apparatus must be inspected at regular intervals. An inspection and maintenance programs for tanks and pipelines should be initiated to mitigate against the risk of leakage.

The clean down operation poses a risk to the surface water system and full precautions should be taken to mitigate against the risk of spillage from the operation. This should include as a minimum:

- Functional high-level alarms and holding tank security
- High level over-flow collection where applicable – in particular a vacuum tanker should be on site as back-up during the washing process
- Valves should be placed at water diversion points to give added protection while unloading soiled water tanks.

### **During Operation**

- It is vital that there is no deterioration in water quality in the watercourses in the vicinity during operation.
- All activities on site to be carried out be in accordance with the Department of Agriculture, Food and Marine, Bord Bia, EPA, and Limerick City & County Council specifications and/or industry standards.
- All organic fertiliser generated on the site to be removed by a registered contractor for use elsewhere.
- All soiled water to be appropriately collected, stored and utilised in accordance with the requirements of S.I. 605 of 2017 (as amended).
- All potentially polluting products (fuels, detergents etc.) to be stored in appropriately bunded/secured areas.
- Stormwater discharge points to be checked and inspected regularly for any sign of contamination.
- Appropriate measures to be put in place to deal with any accidents etc. that have the potential to cause adverse environmental impact.





*Figure 5: Surface Water Map*

## **6.0 Effects on Air**

The potential effects of the proposed activity on air relate to the odour emissions that may be associated with poultry and poultry manure on site. Odorous emissions from the developed site are not likely to cause nuisance or impair amenity beyond the site boundary with the possible exception of times when birds and/or manure are being removed from the site, which will occur at the end of each cycle, approximately once every 11 months.

A number of management practices will be implemented on site so as to minimize potential odour emissions from the proposed development.

- Proper storage of all wastes on site, and regular removal of same. Daily flock inspections to remove any fatalities from the houses and stored in proper sealed and covered storage bins.
- Thorough cleaning out of poultry houses to minimize odour and maintain high health status.
- Regular cleaning and inspection of outside areas.
- Immediate removal of manure off site, wherever possible. Transport of manure of site to take place in properly designed and covered trailers.
- Proper management of temperature and humidity controls.



Management of operations on the site to prevent significant pulse releases of odour at times when the effect might be perceptible beyond the site boundary should ensure minimal impact on air in the vicinity of the site.

As detailed previously the proposed development is located at its nearest point c. 110 m in off the local L1311 road, and at a significant distance away from any Natura 2000 sites and emissions (including gaseous emissions) from the proposed activity are unlikely to adversely impact on same and/or on any other sensitive areas.

### **7.0 Effects on Climate / Climate Change**

Climate information is useful for predicting the likely impacts that the farm operation and the application of manure in the area will have upon the residents. Wind direction at the site is critical to odour movements and rainfall is a critical factor in the application of manure. The prevailing wind in the West Limerick area is from the South-west. Rainfall in the applicant's farmlands ranges annually from 800mm – 1000mm.

Organic fertilizer from this farm will be used by customer farmers. The fact that the customer farmers utilising organic fertiliser from this farm will allocate it in accordance with the provisions of S.I. 605 of 2017, particularly with regard to amounts applied, weather and ground conditions at the time of spreading, and even application, etc., should ensure that emissions generated are kept to an absolute minimum. Dry manures will spread more evenly, and modern rear emptying muck spreaders are likely to be more precise than side discharging machines. Also the recipient farmer(s) shall be doing their utmost to incorporate the manure into soils as soon as possible, thereby minimizing odours and maximizing fertilization potential.

All customer farmers will be advised that in order to minimise any potential adverse environmental impact including odour/emissions, and to ensure that they get maximum fertiliser benefit from the organic fertiliser, that all manure from this farm should be stored, managed and applied in accordance with S.I. 605 of 2017 (as amended)

All practicable steps, such as existing management routines will be planned for and will be taken so as to minimize odour from the site. Its rural setting and location distant from local residents will ensure no significant effect on human beings. The existing farm has operated with no adverse impact and no complaints from neighbours to date.

This development will have no significant adverse effect on climate.

### **8.0 Effects on Visual Aspects**

Due to its location i.e., 110m in from the local road L1311 this activity will have no significant adverse effect on the visual aspects of the locality.

### **9.0 Effects on Archaeological Cultural Heritage**

There are no known archaeological sites within the site boundary and no reason to suspect the presence of such sites within the site of the proposed development. No indication of archaeological sites/features were observed as part of previous developments on this site.

### **10.0 Effects on Material Assets**

Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin and the value may arise for either economic or cultural reasons.

The assessment objectives vary considerably according to the type of assets, those for economic assets being concerned primarily with ensuring equitable and sustainable use of resources. Assessments of cultural assets are more typically concerned with securing the integrity and continuity of both the asset and its necessary context.

Material assets that may potentially be affected by the proposed development include:

- (A) Material Assets: Agricultural Properties including all agricultural enterprises.**

The proposed activity is to be completed on an existing site that currently is farmed by the applicant which is surrounded by agricultural farmland. The proposed development will not interact with any lands outside the confines of the site, except for the export of organic fertiliser which shall be utilized by farmers as a replacement for chemical fertiliser.

**(B) Material Assets: Non-agricultural Properties including residential, commercial, recreational, and non-agricultural land.**

The proposed activity is in a traditional farming area and is surrounded by agricultural lands and is located well away from any built-up areas and/or development clusters. In our opinion the development will have no impact on adjoining property values if for no other reason than there is a significant distance between the proposed development and the residential locations.

**(C) Material Assets: Natural or other resources including mineral resources, land and energy.**

The proposed activity shall be operated on an existing site and there will be no adverse impact outside of the development area.

The operation of the farm will require additional feed (classified as a renewable resource), gas and water, the applicant will continue to operate modern feeding, ventilation and heating systems to minimize same,

The farm does not require any modifications to the existing electricity network, water or road infrastructure in the area.

**11.0 Description of likely significant effects of the proposed activity arising from:**

*11.1 The existence of the proposed activity*

The proposed activity would add to the economic activity and employment on the farm, with consequent positive effect in the region and the local community.

Its impact on the landscape will be nil given that all required infrastructure is already in situ.

The long-term impact on traffic on the local road as a result of the proposed development will not have a significant adverse impact. Because of the extended production cycle, increased traffic would only occur as a once-off every 11 months or so bar additional feed deliveries.

- Feed deliveries – Average of 1 additional 28 tonne load per week
- Manure transport c. 30 additional loads per batch on average once every 11 months

- Fortnightly waste collections and collection of mortalities.

This will result in an average of approx. 4 movements per week in addition to daily attendance at the site by the applicant and additional traffic associated with cleaning of the houses, inspections, audits, etc.

Traffic to and from the site will be minimised by optimising load sizes. While there will be a minimal increase in traffic and this will not adversely impact on the local road network which will be more than adequate to accommodate same. The traffic flows will use the existing road infrastructure and therefore any proposed increase in traffic will not have an adverse impact on the local area.

### *11.2 The use of natural resources*

There are no significant negative effects expected as a result of the proposed development in relation to the use of natural resources. As previously detailed the development will require a limited existing land area to facilitate the proposed activity, however same will have no adverse impact on land, soil and/or biodiversity.

The proposed activity will have a definite requirement for a supply of water readily available from the 2 boreholes on site. There will be additional water used on the farm as a result of the proposed activity.

The main item to be consumed would be additional poultry feed, which is classified as a natural resource that is renewable resource. The consumption of feed and water will be proportionate to the stock numbers on the farm.

### *11.3 The emissions of pollutants (noise, vibration, light, heat, radiation etc.)*

Clean storm water will be diverted to land drains. Such clean water is not an emission. Site management is to be focused on ensuring that all storm water collection surfaces and facilities are maintained in clean and fully functional condition at all times so that the possibility of storm water carrying significant pollution to the surrounding surface waters is effectively eliminated.

The emission of pollutants is to be effectively controlled and prevented by the removal of all solid waste materials from the site to authorised disposal/recovery sites elsewhere and by the removal of poultry manure off site by the experienced contractor. Accordingly, it is expected that there should not be any significant emissions of the pollutants from the site and that there should be no perceptible environmental effect arising from emission of pollutants from the site.

With regard to the above and due to the nature of the proposed development, there will be no significant increase in the amount of wastes/potential pollutants produced or used on the farm, and/or no significant increase in noise, vibration, light, heat and/or radiation that would lead to significant adverse environmental impact.

The additional organic fertiliser/poultry manure to be produced will be utilised as resource ingredient for Wexford Composting and/or as an organic fertiliser and will be removed from the site by an experienced licenced contractor. All soiled water to be allocated to the applicant's adjacent landholding.

### *11.4 The creation of nuisance*

The proposed activity, which is an extension of existing activity on the farm, will be carried out in accordance with the management and operational routine proposed, and in line with E.P.A., D.A.F.M., Bord Bia and Limerick City & County Council requirements, is not expected to create any significant nuisance.

### *11.5 The elimination and/or disposal/recovery of waste/by-products*

The net increase in the volumes of waste/by-products materials to be generated as a result of this proposed activity will not cause a significant adverse environmental impact, as all waste streams are to be minimized by implementing ongoing good practice measures on-site and any wastes that cannot be eliminated will be disposed/recovered in line with existing requirements including to approved disposal/recovery sites, and/or approved carriers.

The volume of organic soiled water produced will be minimized by efficient cleaning out and the use of high-pressure low volume pressure washers, in any event adequate measures for the collection, storage, management and use of these materials have been identified previously, thus ensuring that there is no adverse environmental impact from same.

The opportunity to reduce the volume of waste materials below, that which are generated under Good Farming Practice and which will be generated on this farm once the proposed activity is nigh-on impossible. The proposed cleaning, hygiene, disease control and restricted access measures that will continue to be implemented on site will minimise this risk. Accordingly, the waste of dead birds cannot be eliminated and cannot realistically be planned to reduce below the level achievable under current best practice.

### *11.6 The risk to human health, cultural heritage or the environment (for example due to accidents or disasters)*

The potential risk to human health / cultural heritage and/or the environment due to accidents and/or disasters is limited to the innate nature of the production system and activities on-site. There is no significant high risk/hazardous products used, produced and/or released by the proposed development which would pose a risk to human health, cultural heritage and/or the environment outside of the site boundary as a result of any accident/disaster.

### *11.7 Class A Disease*

In the event of a Class A disease many animals will be slaughtered, possibly both on infected farms and in preventative slaughter of dangerous contact and contiguous premises.

There are two major considerations to be taken into the account in deciding on the method of disposal to be used for the slaughtered animals:

1. Preventing the spread of the disease/virus
2. Minimising damage to the environment

In respect of environmental damage, the methods of disposal in order of preference are, render, bury and burn. The location and extent of any initial outbreak of a particular disease will determine which method of disposal is used, however this will be dictated by individual circumstances. The disposal strategy to be employed will be decided by the department of Agriculture, Food and Marine in consultation with the National Expert Epidemiological Group. The preferred option for the disposal of carcasses from this farm site is rendering.

### *11.8 The impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change*

Large livestock populations and nitrogen inputs to soil generate c. one third of all greenhouse gases in Ireland. The amount of methane emitted by livestock is a lot higher for ruminants such as cattle and sheep versus non-ruminants such as poultry/pigs. This is as a result of the different digestive systems.

N2O emissions can be divided into three areas:

1. Direct from agricultural soils and from agricultural production systems.
2. Indirect emissions which take place after nitrogen is lost from the field through volatilization
3. Emissions resulting from agricultural burning – which has recently been completely banned

The fact that the receiving farmers are allocating organic fertiliser in accordance with the provisions of S.I. 605 of 2017 particularly with regard to amounts applied, weather and ground conditions at the time of spreading and even application, etc., should ensure that emissions generated are kept to an absolute minimum. Dry manures will spread more evenly, and modern rear emptying muck spreaders are likely to be more precise than side discharging machines.

In addition, the proposed development will be designed, managed and operated so as to minimise energy use on the farm, thus minimizing any greenhouse gases associated with energy use.

As the birds will be maintained in a controlled environment with the proposed house, the operation of the farm is not directly significantly susceptible to climate change, however climate change may impact on energy use associated with heating/ventilation systems to maintain a controlled environment within the house relative to outside climatic conditions and may have implications for feed supply to feed the birds.

#### *11.9 The forecasting methods used to assess the effects on the environment.*

Forecasting relies heavily on the accumulated experiences of current operations on the existing site, operations in similar developments and on the knowledge that wastes removed from the site for disposal or recovery elsewhere will have negligible impact on the environment around the proposed development.

The applicant has been involved in farming for a large number of years and has had no incidents with regard to the effect of this enterprise on the local environment.

Taking into account that poultry farming is a traditional and widespread farming activity in Co. Limerick and that this proposed development will comply with the Nitrates Directive, the applicant is fully confident that the proposed development will have no significant adverse effect on the local environment.

#### *11.10 Cumulative and Transboundary Effects*

This proposed poultry farm is located Co. Limerick, a county well recognised for its agricultural sector. The site is located c. 5 km from the River Maigue. The closest poultry farm to the proposed development is c. 1.7 km away to the South East of the applicant's site. The closest EPA licenced site we're aware of is c. 19.87 km North West from the site of the proposed development.

It is anticipated that the proposed development at this site will not lead to a transboundary effect due to the fact that in the main all wastes/by-products will be managed responsibly in line Limerick City & County Council, E.P.A. and/or Department of Agriculture, Food and Marine requirements and utilised/disposed of/recovered within the country at designated and approved sites and/or in accordance with relevant legislation.

In addition, the Natura Impact Statement *Appendix No. 17- Natura Impact Statement* has confirmed no potential adverse impact on Natura 2000 sites in Ireland.

The proposed activity will not have a cumulative adverse impact on the local environment. It has been demonstrated by that the existing farming activities that are carried out on-site are done so with no significant adverse impact on local environment and in compliance with S.I. 605 of 2017. Due to the fact that all manure is to be moved off site and appropriate measures are in place to address wastes arising on the farm, it is anticipated that this development would not adversely impact on the local environment within the West Limerick area when assessed individually and/or cumulatively with other such developments in this area.

### *11.11 Inter-relationships*

As a requirement of the European Communities (Environmental Impact Assessment) Amendment Regulations, 1999 (S.I. No. 93 of 1999) (as amended) not only are the individual significant impacts required to be considered, but so must the inter- relationships between these factors be identified and assessed.

Part ii (second schedule) of the regulations requires that the interactions between human health / population, Biodiversity (Flora and Fauna), Land/Soil, water, air and climatic factors, landscape, material assets and cultural heritage (incl. architectural and archaeological) be assessed. These are outlined separately in the Ecological Impact Assessment report supplied as part of this application.

Where any environmental element in the top row of the matrix (the receptor) is likely to be affected in any way by any element in the left column (the impactor), which contains the list of aspects of the environment likely to be significantly affected by the proposed development these have been indicated. A distinction has been made between positive, negative and neutral impacts in this matrix.



**Table 5: Matrix Indicating Inter-relationships between EIA Factors.**

	Land/ soil	Water	Air & Climate/ Climate Change	Landscape & Visual	Noise	Traffic / Roads	Biodiversity (Flora and Fauna)	Human Health / Population	Cultural Heritage	Material Assets
Land/ soil		N		N			N	Pos		
Water							N			
Air & Climate/ Climate Change							N	N		
Landscape & Visual										
Noise										
Traffic / Roads			N		N			N		
Biodiversity (Flora and Fauna)				N						
Human Health / Population	Pos	Pos	Pos	Pos		N	Pos		Pos	Pos
Cultural Heritage										
Material Assets								Pos		

Neutral	N
Positive	Pos
Negative	Neg
Not Applicable	



#### ***11.11.1 Discussion – Positive Impacts***

The following details the rationale for concluding that there is a net positive impact as a result of the inter-relationship between the factors listed below.

- ***Impacts of Land / Soil on Human Health / Population*** – the proposed activity will provide for a supply of poultry manure which is a valuable fertiliser used by farmers both to offset the cost of purchasing chemical fertilizer and increase soil quality through organic matter and biological activity. The supply of organic manure will result in gains to the recipient farmers and therefore a net positive impact of the proposed development.
- ***Impacts of Human Health / Population on other Factors*** – The increase in farm activity would mean that there will be additional resources available to facilitate improvements through human endeavour in the following factors: Land/Soil, Water, Air & Climate/Climate Change, Landscape & Visual, Biodiversity (Flora and Fauna) and cultural heritage. Improvements in Land / Soil can be achieved through the addition of organic fertiliser, improvements in water through improved management and separation of storm and soiled waters where possible (albeit there is limited scope for this). Improvements in Biodiversity (Flora and Fauna) through the provision of additional site landscaping and maintenance and improvement in cultural heritage by the availability of time and money for the enjoyment of heritage. The impact on human health / population will ultimately result in improvements to material assets.

#### ***11.11.2 Discussion – Neutral Impacts***

The following details the rationale for concluding that there is a neutral impact as a result of the inter-relationship between the factors listed below.

- ***Impacts of Land / Soil on Water, Landscape & Visual and Biodiversity (Flora and Fauna)*** – The organic fertiliser will have a positive overall impact on Land / Soil adding additional nutrients. However, there is a potential for leaching of these nutrients to water. However this threat has been mitigated as all organic manure is to be allocated to farmers for use in accordance with S.I. 605 of 2017 and excessive application of the organic fertiliser will not occur on site. The positive impact on Land / Soils in the customer farmland areas will potentially see a change in landscape through the improvements in field pastures, this may be viewed as a slightly positive impact overall and any changes will be minimal through compliance with S.I. 605 of 2017 as this organic fertiliser will used to replace chemical fertiliser. The changes in Land / Soil may result in a reduction in diversity of biodiversity (Flora and Fauna) in receiving lands. However, all lands proposed for receipt of organic fertiliser will comprise productive agricultural lands for the production of crops or improved grassland and organic manure will not be applied to areas of scrub or other habitats.
- ***Impacts of Air & Climate / Climate Change on Biodiversity (Flora and Fauna) and Human Health / Population*** – There is a potential (but unexpected) threat to Biodiversity (Flora and Fauna) and Human Health / Population as a result of this proposed activity. The generation of mal-odour on site may have a slight negative impact on Biodiversity (Flora and Fauna) and in particular on human health / population, however adequate mitigating measures have been described in this E.I.A.R. to ensure that this threat does not materialise and thereby ensuring the potential impact is neutral.

#### ***11.11.3 Potential Impacts and Mitigation Measures***

This section presents the significance of potential impacts following the implementation of mitigation measures. The E.P.A. classifies impacts in the recently published E.I.A.R. Guidelines as follows:

**IMPACT**

**DESCRIPTION**

<p><u>Positive Effects</u></p> <p>Quality of Effects</p> <p><u>Neutral Effects</u></p> <p><u>Negative Effects</u></p>	<p>A change which improves the quality of the environment</p> <p>No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error</p> <p>A change which reduces the quality of the environment</p>
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<b>Describing the Significance of Effects</b>	<u>Imperceptible</u>	An effect capable of measurement but without significant consequences.
	<u>Not significant</u>	An effect which causes noticeable changes in the character of the environment but without affecting its sensitivities
	<u>Slight Effects</u>	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	<u>Moderate Effects</u>	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
	<u>Significant Effects</u>	An effect which by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	<u>Very Significant Effects</u>	An effect which by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	<u>Profound Effects</u>	An effect which obliterates sensitive characteristics

<b>Describing the Duration and Frequency of Effects</b>	<u>Momentary Effects</u>	Effects Lasting from seconds to minutes
	<u>Brief Effects</u>	Effects Lasting less than a day
	<u>Temporary Effects</u>	Effects Lasting less than a year
	<u>Short-term Effects</u>	Effects Lasting one to seven years
	<u>Medium – term Effects</u>	Effects Lasting seven to fifteen years
	<u>Long-term Effects</u>	Effects Lasting fifteen to sixty years
	<u>Permanent Effects</u>	Effects Lasting over sixty years
	<u>Reversible Effects</u>	Effects that can be undone, for example through remediation or restoration
	<u>Frequency of Effects</u>	Describe how often the effect will occur, ((once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually ))

<b>Describing the Extent and Context of Effects</b>	<b><u>Extent</u></b>	Describe the size of the area, the number of sites and the proportion of a population affected by an effect
	<b><u>Context</u></b>	Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
<b>Describing the Probability of Effects</b>	<b><u>Likely Effects</u></b>	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	<b><u>Unlikely Effects</u></b>	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.

Interactions between the above environmental factors show the potential effect of the poultry operation on the community and its environs. Human beings are the main impact receptor, flora and fauna being the other. The poultry operation and its production processes will minimally impact upon the landscape, archaeology, terrestrial, water quality and climate described under the heading Natural Environment.

Traffic, air quality, noise, tourism and material assets are the factors that affect the community directly. The planned operation of the poultry farm and the associated fertiliser substitution programme will have no significant impact on the rural community.

	Category	Potential Env. Issues/Effects	Potential Impact ~ Site	Potential Impact ~ Customer Lands	Duration	Mitigation	Residual Impact
Natural Environment	Terrestrial						
	Biodiversity (Flora and Fauna)	Destruction/loss of habitats	Neutral	Neutral	Long-term	Existing site of no significant ecological importance. Organic fertiliser to replace chemical fertiliser in accordance with S.I. 605 of 2017, no impact, Integration with existing farm enterprise.	None
		Eutrophication	Negative	Neutral	Long-term	High quality development and storm water discharge systems. Nutrient balance / organic fertiliser substitution. Organic fertiliser will replace chemical fertiliser.	Slight
	Fresh water / Groundwater	Risk of contamination	Negative	Neutral	Long-term	Fertiliser planning / Composting / Codes of Good Practice applied (S.I. 605 of 2017, customer farmlands)	Slight
	Landscape	Visual impact	Negative	Neutral	Long-term	Site low set in a natural substantial dip in the the landscape. Low finished floor level relative to average ground level. Properly landscaped.	Slight
	Archaeology	Disturbance of archaeological finds	Neutral	Neutral	Long-term	No archaeological finds within the site from previous development. Site not located near to, or likely to impact on any archaeological sites.	Neutral
	Climate / Climate Change	Contribution of greenhouse gases	Positive	Neutral	Long-term	Poultry production is less harmful than ruminant production in terms of methane emissions. Organic manure will replace inorganic fertilisers eliminating manufacturing / transport energy use. Integration with existing farming activities.	None
Human Health / Population	Land / Soil	Fertiliser substitution	Neutral	Positive	Long-term	Loss of agricultural land (site), however not significant due to the limited area. Improves profitability by reducing costs and improving output. Integration with existing farming activities.	None
	Community	Application of manure	Neutral	Neutral	Long-term	Significant requirement for additional organic fertiliser.	None
		Vermin and pest infestation	Negative	Neutral	Long-term	Control programme to be practised on the farm in line with Bord Bia requirements.	None

		Fire hazard	Negative	Neutral	Long-term	Fire Points / extinguishers / staff training	None

	Traffic	Long – term increase in traffic	Negative	Neutral	Long-term	Inward / Outward traffic primarily during working hours. Minimise traffic volumes by optimising load sizes, synchronising 2 No. poultry houses life cycles. Additional short-term peak during construction	Slight
	Noise	Stock Noise at feeding/ moving. Feed deliveries / manure removal	Negative	Neutral	Long-term	Prioritise activities during working hours. Remote location: set back c. 210m from the local L8025 road	None
	Air	Generation of Odours	Negative	Neutral	Short – term	Adherence to Code of Good Practice to Reduce Odour Emissions when spreading soiled water. High standard of housing and management and washing between batches. Buffer zones from sensitive dwellings / areas	None
	Tourism / Amenities	Landscape	Neutral	Neutral	Long-term	Site location will have no impact on the environment	None
		Water Quality	Neutral	Neutral	Long-term	High standard of development and management / Fertiliser planning / Buffer Zones / Codes of Good Practice applied / Integration with existing farming activities.	None
	Material Assets	Reduction in material / residual quality	Neutral	N/A	Long / short-term	Site location will ensure that there is no negative impact on the material assets of the area	None

#### ***11.11.4 Difficulties encountered in compiling the required information.***

The processes and technology involved in the operation of the proposed activity are of a good standard for agricultural/poultry units and are well understood. In addition, the main principles are substantially similar to that already in practice on numerous other farms locally and throughout the county.

There were no particular difficulties encountered and there is no reason to consider that there is any serious risk of error attaching to plans and projections for the treatment of wastes to be generated in the proposed development. As stated previously, this Environmental Impact Assessment Report, relate to the proposed increase in activity on an existing brownfield site.

The operation of the existing farm in conjunction with the proposed development will be carried out in accordance with the requirements of Limerick City & County Council, the E.P.A. The Department of Agriculture Food and Marine and Bord Bia to achieve maximum efficiency, flock performance and environmental standards.

#### *11.12 Description of measures envisaged to avoid, reduce, prevent or if possible, offset any identified significant adverse effects on the environment.*

The following best practice / mitigation measures have been proposed to reduce any potential adverse impact, significant, or otherwise:

- I. Provision of sufficient and safe access to the site and measures to avoid excessive soiling of the public road during manure removal.
- II. Continued preservation of existing trees and hedgerows surrounding the site so as to provide a continued screen from obtrusive view and to allow it to be absorbed into the rural landscape.
- III. Provisions of soiled water drains to properly collect any effluent or soiled water and divert it to the nearest soiled water tanks.
- IV. The collection and the removal from the site of all manure. All soiled waters to be collected and used on farmland in accordance with the Nitrates Directive.
- V. Appropriate collection and removal from the site of waste materials generated on the site. Record and maintain records of all consignments of waste despatched from the site in accordance with requirements.
- VI. The collection and the removal from the site of all dead animals and all animal tissues. A small proportion of the birds maintained on the farm die prematurely. These carcasses are and will be stored in a covered sealed container on site, awaiting collection by an authorized contractor. Wards Waste Ltd is an authorised contractor who regularly removes these carcasses, and any other such material to his authorised By-Products plant at Tournafulla, Co. Limerick, in compliance with existing requirements. Ensure collection of animal tissue removal so as to ensure minimal generation or release of odours either at the site, or during transit to the disposal/recovery destination.
- VII. Comprehensive cleaning and hygiene routine to minimise potential odour from the site.
- VIII. Specially formulated diets to maximise performance and reduce nutrient excretion.
- IX. Proper maintenance and inspection procedures and reduce that all feeding, water supply, manure removal, and ventilation systems are working to maximum efficiency, ensuring manure is maintained as dry as possible and minimising energy consumption.

Implementation of the above will ensure that significant effects on the environment will be avoided and the risk of incidents of environmental significance will be near zero.



## 12.0 : Environmental Management Programme

### 12.1 Introduction

The applicant will implement and maintain a comprehensive monitoring program on site. This plan will in effect be governed by the requirements of the E.P.A., as outlined in any licence issued to this farm and by the applicant's requirements under the environmental legislation such as S.I. 605 of 2017 (as amended).

Implementing this program will ensure that any environmental impacts from the activities associated with the operation of the poultry farm will be minimized as much as possible.

### 12.2 Organic Fertilizer Management Program

The applicant will implement and manage a program for the allocation of organic fertilizer in each particular year and currently have one recipient farm to receive manure on each cycle.

The main aspects are to ensure that the requirements of S.I. 605 of 2017 (as amended) are met in full by the applicant. This will include:

- The allocation of manure to a registered farm and said manure to be utilized as per DAFM Nitrates regulations
- Proper separation of all clean water on site and the collection of all soiled water in the soiled water storage tanks.
- Continuous recording of all organic fertiliser transfers off the farm (as per the record 3 form) developed by the Department of Agriculture Food and Marine, and the submission of all records to the Department of Agriculture Food and Marine, as required.

### 12.3 Organic Fertilizer Management Program – Part B

#### I. Work schedule for fixed structures

- A maintenance program for all structures and systems to be implemented to ensure that same are operating to maximum efficiency.

#### II. Monitoring Fixed structures for the following:

- Checking soiled water and clean water drainage systems for deterioration, leaks and blockages

#### III. Monitoring and analysis.

- Storm water emissions points to be visually inspected and recorded regularly.
- Soiled Water Storage Tanks – To be monitored and recorded as required for remaining storage capacity.
- Noise, Odour and Dust emissions not to cause an adverse environmental impact outside of the site boundary.

### 12.3 Assessment of Operational Phase Impact Pathways

#### **Hydrological pathways**

None exist between the proposed activity and any Natura 2000 sites.

**On-Site during Operational Phase**

The main potential threat to groundwater in the vicinity of the unit is due to the storage of soiled water on site in underground storage tanks. Current storage capacity amounts to 248m<sup>3</sup> onsite. Projected volumes of soiled water from the operation of the poultry house is c. 180 m<sup>3</sup> / annum. The current storage capacity is more than adequate to fulfil the requirements of the operational phase of the proposed poultry unit.

All storm water will be diverted to land drains.

**Off-site during Operational Stage**

This Poultry unit when fully developed is estimated to produce c. 180 m<sup>3</sup> of soiled water annually. The spread-lands on to which this soiled water are the lands surrounding the unit within the site boundary. The application of soiled water to farmland is regulated under S.I. 605 of 2017 (as amended) and this Poultry Unit will comply with this regulation.

This facility is entitled to supply manure to any local farmer who wants it and is in a position to receive it. Applicant is obliged to record all dispatches from the holding. Furthermore, the farmers acquiring manure are obliged to record all dispatches from the holding.

However, like accidental spills and leaks from the unit, manure which is land-spread off site can cause adverse impacts to habitats and water quality if discharged directly to groundwater and/or surface water, however adequate facilities are in place to minimize this risk. Additionally, manure which is land-spread in unsuitable conditions or not adhering to EU (Good Agricultural Practice for the Protection of Waters) Regulation S.I. 605 of 2017 (as amended) can leak into groundwater and/or surface waters and again this must be avoided and sufficient storage is in place to do so.

## *Operation Phase*

### **Avoidance/Minimisation of Hydrological Emissions**

#### *On-site during the Operational Stage*

In order to ensure that the project does not result in hydrological emissions to ground and/or surface water bodies, the following measures will be implemented:

- All proposed tanks will be constructed to Department of Agriculture, Food and the Marine standards for the construction of farm buildings – tanks have been inspected and have found them to be of an excellent standard.
- The provision of a substantial amount of excess soiled water storage capacity.
- A regular inspection will be carried out of monitoring points, and records of these inspections will be maintained onsite.
- The preparation of a revised Emergency Plan detailing the procedures to be undertaken in the event of a chemical, fuel or other hazardous waste spill, a fire or a non-compliance incident which any permit of licence issues.
- Ensure all staff are trained in the implementation of the Emergency Response Plan and the use of any spill control equipment as required.
- Separating clean and dirty water on farms in order to improve the efficiency of the storage of soiled water and to reduce the risk of dirty/contaminated water entering the surrounding environment.
- The management of the extraction of soiled water from the storage tanks will be carried out using best practice techniques and in suitable weather conditions to ensure no accidental spills or leakage to groundwater occurs.

#### *Off-site during the Operational Stage*

In order to minimise risks to water it is essential that careful planning is done regarding the application of soiled water to land with consideration to weather, drain flow, soil conditions and field situation to reduce the risk of manure reaching water.

Once managed correctly, poultry litter produced at this facility will not have any adverse impact on environmental parameters either inside or outside the site.

- The application of soiled water will be carried out using vacuum tanker fitted with a low trajectory splash plate or low-emission equipment.
- Spreading will not take place:
  - On wet or waterlogged ground
  - On frozen or snow covered ground
  - On exposed bedrock
  - Where surface gradients are excessive (preferably <18% (1:5) On fields that display cracks overpipe or mole drained system
  - On fields that have been piped or mole drained or subsoiled over a pipe or mole drainage system in the last 12 months
  - Outside daylight hours
  - In a manner which would have an adverse effect on a National Monument
- In accordance with the EU (Good Agricultural Practice for the Protection of Waters) Regulations 2014 – S.I. 605 of 2017 (as amended), the following measures will be adhered to with regards to land spreading of manure:
  - (a) subject to sub-article (5), 200m of the abstraction point of any surface watercourse, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying 100m<sup>3</sup> or more of water

per day or serving 500 or more persons,

- (b) subject to sub-article (5), 100m of the abstraction point (other than an abstraction point specified at paragraph (a)) of any surface watercourse, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying 10m<sup>3</sup> or more of water per day or serving 50 or more persons,
- (c) subject to sub-article (5), 25m of any borehole, spring or well used for the abstraction of water for human consumption other than a borehole, spring or well specified at paragraph (a) or (b)
- (d) 20m of a lake shoreline,
- (e) 15m of exposed cavernous or karstified limestone features (such as swallow-holes and collapse features),
- (f) subject to sub-articles (8) and (9), 5m of a surface watercourse (other than a lake or a surface watercourse specified at paragraph (a) or (b)),
- (g) the application of manure will not be applied 10 meters or nearer of any dwellinghouse save with the express approval of the inhabitants in writing,
- (h) no spreading of soiled water will be permitted in windy and/or extremely wet weather or where wet is forecast, close by dwelling houses (100m) or public roads (10m).

### 13.0 Summary

The proposed development as outlined will make a significant positive contribution to the rural economy of Co. Limerick and will serve to increase employment and secure the viability and competitiveness of the applicant's farm enterprise, as well as the wider poultry farming industry. The development will not give rise to any significant environment effects and is working within existing facilities rather than adding to them. The proposed development will be constructed and operated in accordance with the details laid out in the E.I.A.R., AA & Natura Impact Statement and will adhere to conditions imposed as part of any grant of planning permission and E.P.A. Licence for this farm.

Signed:



Ricky Roycroft BSc. Agri. Bus.

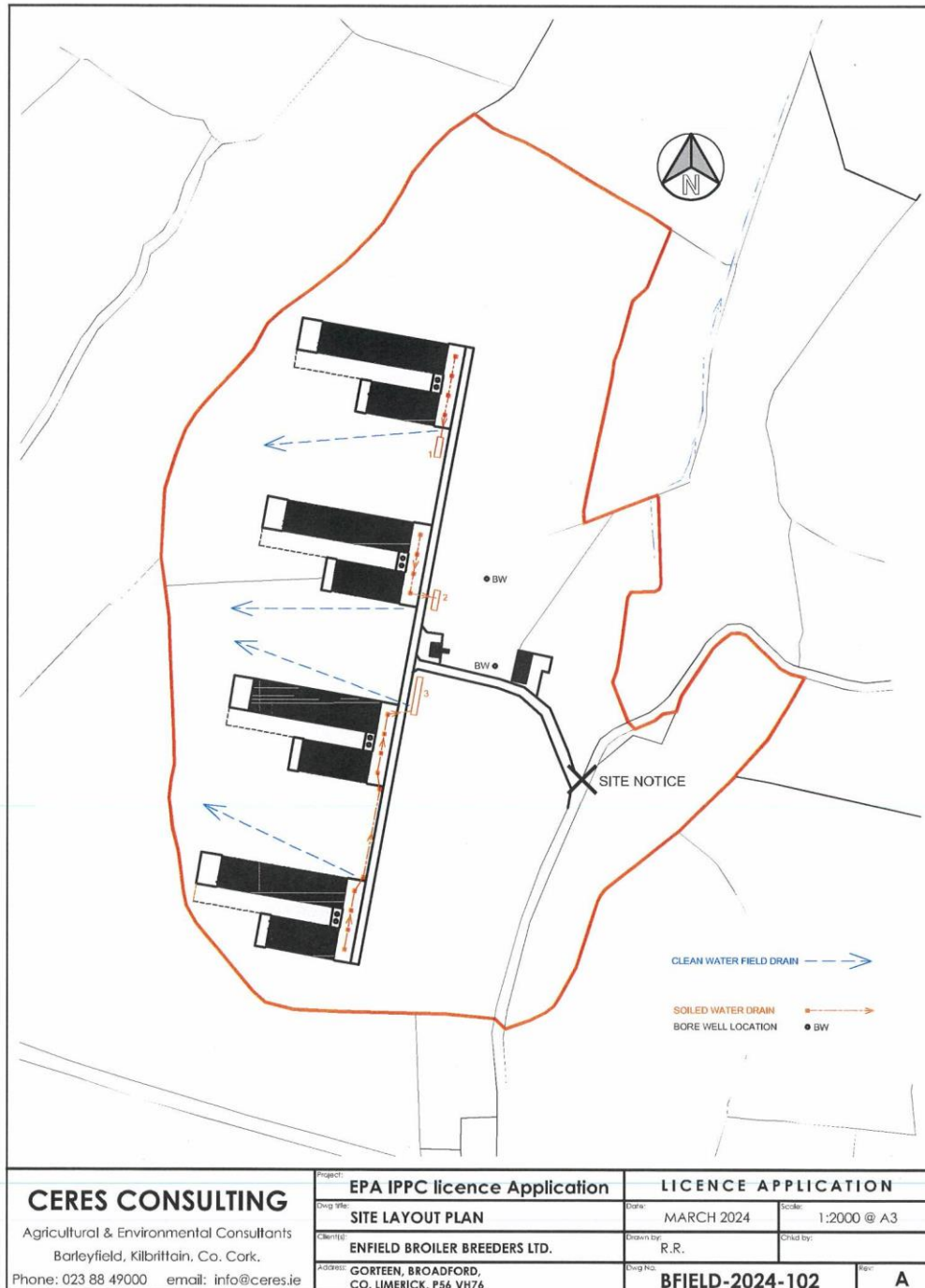
Date: 14/07/2024

## Appendix No. 1 – Site Location Map



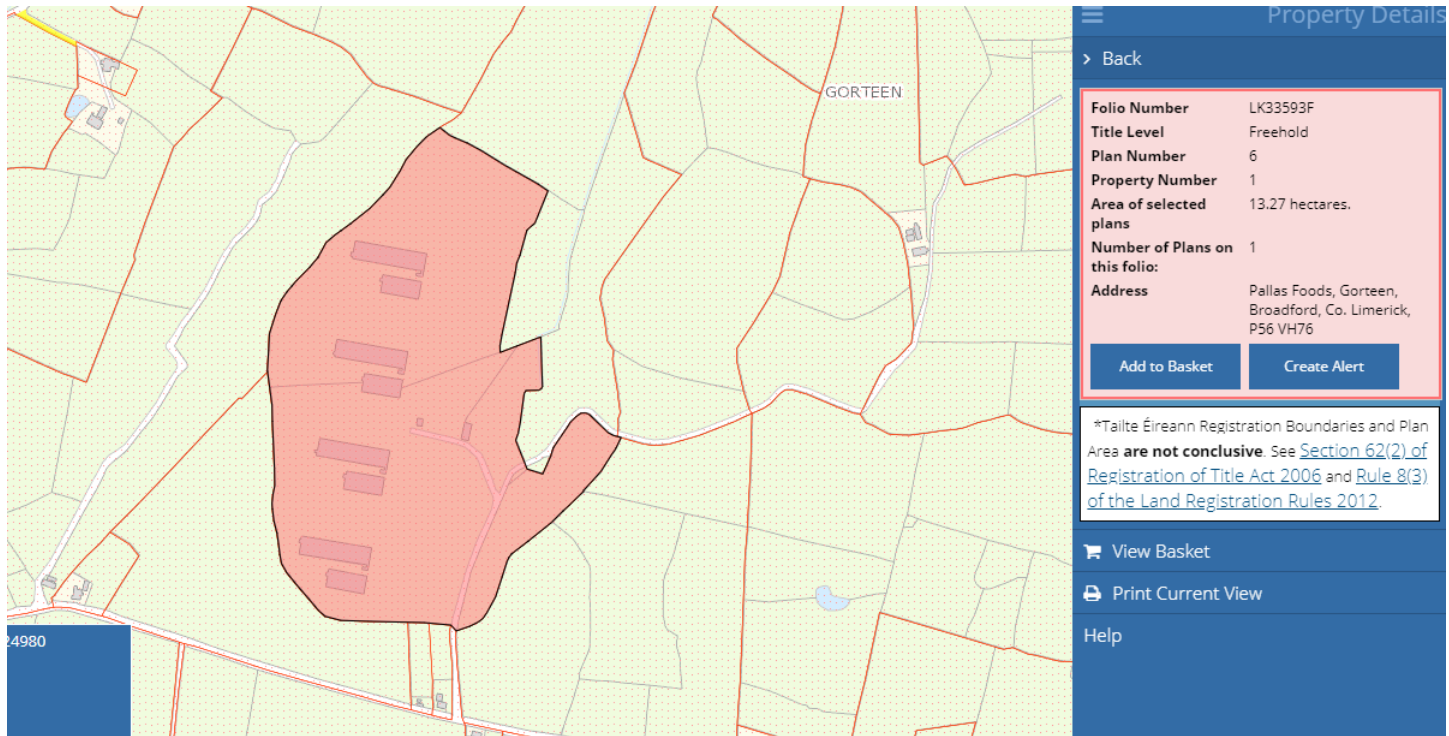


**Appendix No. 2 – Site Layout (Not to Scale)**





**Appendix No. 4 – Extent and Location of Lands Available for Application of Soiled Water**



**Appendix No. 5 – Extract from GSI Soil map of Ireland**





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