MONTGOMERY E.H.S.

PAT KENNY, COOLANORAN, NEWCASTLE WEST, CO LIMERICK

ENVIRONMENTAL IMPACT STATEMENT

FOR THE PROPOSED EXPANSION OF A POULTRY GROWING OPERATION

March 2012

Montgomery EHS
2 Beechwood Gardens
Newcastle West
Co. Limerick
Phone (069) 66796
Mobile (087) 239 0421
Email: trevormontgomery@hotmail.com

PAT KENNY

ENVIRONMENTAL IMPACT STATEMENT

This document has been prepared on behalf of and for the exclusive use of Pat Kenny by Montgomery EHS on the basis of a submission to Limerick Co Co as part of the planning process.

Conclusions and recommendations contained in this Document are based on information supplied by the Client and others. Unless expressly stated otherwise, information provided by Third Parties has not been verified by Montgomery EHS.

Montgomery EHS accept no liability or responsibility whatsoever in respect of any use of or reliance upon all or part of this Document by any third party.

Document No. ..... ES_P012_10-02

Rev	Description	Origin	Review	Changes/Amendments	MEHS Approval	Date
1	Draft	MM	TM	Draft for review	Yes	23/03/12
2	Final	MM	TM	Issued	Yes	26/03/12

CONTENTS

Figures

Tables

1 LEGISLATIVE REQUIREMENTS

1.1 INTRODUCTION

This chapter broadly describes the legislation under which Pat Kenny proposes to expand the existing poultry operation is presented. The planned development will require submission of a Planning Application to Limerick County Council, together with an Environmental Impact Statement.

At a conference in November 2010 Dermot Ryan, Deputy Chief Inspector at the Department of Agriculture, Fisheries and Food drew attention to the Department's recently launched Food Harvest 2020 report and the particular provisions of this initiative that "will be significant to the development of the poultry and egg sector over the coming decade." He highlighted the importance of research into "new technologies aimed at improving production efficiencies as well as further development of innovative and value-added output as crucial to competitiveness and future growth."

Speaking at the event Aidan Cotter, Chief Executive, Bord Bia commented "The poultry and egg sector remains a valuable and integral part of the Irish agricultural economy, with output at farm level estimated at €150 million in 2009 (€120 million from poultry meat and €30 million from eggs). The sector is a significant employer in rural Ireland with over 6,000 people employed in poultry processing and egg packing and up to a further 850 farms involved in the production of poultry and eggs."

Ireland has one of the highest levels of poultry meat consumption within the EU, with in excess of 30kg per capita consumed and this volume is increasing with annual chicken sales up by 5% over the past year. However, one of the greatest issues for the poultry meat sector is the level of imports which continue to exert downward pressure on the market and the indigenous Irish poultry industry.

The increase in the capacity at Pat Kenny poultry farmer will help meet the growth in the sector description of the development

1.2 ENVIRONMENTAL IMPACT ASSESSMENT AND PLANNING LEGISLATION

This Environmental Impact Statement (EIS) has been prepared in accordance with the requirements of the European Communities (Environmental Impact Assessment) Regulations, 1989 to 2001 and the Planning and Development Act, 2000 and Planning and Development Regulations 2001. This legislation requires the assessment of the effects of certain public and private projects on the environment.

The developer following discussion with the planning authority is required to have an EIS carried out as part of the planning application under the following regulations:

1) EC (Environmental Impact Assessment) Regulations 1989: Article 24. Schedule. Part II 1. (d) " Poultry rearing installations where the capacity would exceed 100,000 units, where units have the following equivalents: 1 broiler = 1 unit, 1 layer, turkey or other fowl =2 units".
2) Planning and Development Regulations 2001 (S.I. No. 600 of2001).
    - These regulations state that even if the development is under the relevant EIA threshold the planning authority is required under article 103 to request an EIS where it considers that the proposed development is likely to have significant environmental effects.
    - Section 17: An EIS is required for "installations for the intensive rearing of poultry or pigs with more than: (a) 85,000 places for broilers 60,000 places for hens).

The documents *Guidelines on the information to be contained in Environmental Impact Statements*, 2002 and *Advice Notes on Current Practice (in the Preparation of Environmental Impact Statements)*, 2003 as prepared by the EPA, were followed in the preparation of this EIS. The guidelines state that in preparing an EIS, the Developer will carry out an analysis of the likely effects of the project (positive or negative) on the environment. The Environmental Impact Assessment procedure commences at the project design stage when the scope of the study is determined. Studies are then carried out to investigate, in detail, any potential environmental impacts. Where significant adverse impacts are identified, measures are recommended to mitigate or avoid the impact of the proposed Development.

This Environmental Impact Statement examines the potential significant impacts of the proposed expansion of the poultry operation at the Coolanoran, Newcastle West, Co. Limerick. The extent of the proposed scheme is described in detail in **Chapter 2**. The potential environmental impacts of the proposed scheme are addressed in **Chapters 3-14** of this volume of the report under the headings, Human Environment, Natural Environment, Material Assets and Architecture, Archaeology and Cultural Heritage.

1.3 SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT

Scoping is an essential part of the preparation of any planning application 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 Environmental Impact Statement. With regard to EPA criteria for scoping, the environmental areas that may be impacted by the proposed scheme were identified and are:

Human Beings

During scoping, particular regard was given to the potential impact of the expansion to the poultry growing operation on the local communities.

Natural Environment

The site of the existing poultry operation and the proposed extension is located in an area of poor ecological value. The site is not located or boarding any sensitive ecological areas including Natural Heritage Areas (NHA) Special Area of Conservation (SAC) or Special Protection Area (SPA).

The impacts on the land and plant contained within must be assessed with care to ensure that all impacts are clearly identified and where possible removed, reduced or minimised to a satisfactory level.

Material Assets

This involves aspects impacted by land take for the proposed scheme and available resources such as soils, utilities etc. The development will be constructed primarily on 'greenfield' site in land currently owned by Pat Kenny.

Architecture, Archaeology and Cultural Heritage

The site is located in an area of improved agricultural grassland, and is of low potential with regard to archaeological and other cultural heritage finds.

1.3.1 Scenarios Investigated

A number of different scenarios have been examined when determining likely significant impacts.

- The "do nothing" scenario which compares the quality of the existing receiving environment with that of the likely environment should the proposed scheme not be built.
- the "do something" scenario which compares the quality of the existing receiving environment with that of the likely environment should the proposed scheme be built.

1.4 IDENTIFICATION OF LIKELY SIGNIFICANT IMPACTS

Schedule 6 of the Planning and Development Regulations requires that the projects requiring an EIS describes the likely, direct and indirect impacts of a proposed scheme. The Environmental Impact Statement will follow the same basis. The EPA (Guidelines on the Information to be Contained in Environmental Impact Statements, 2002) defines an impact as "the degree of change in an environment resulting from a development" and continues to elaborate on impacts in terms of quality (positive, neutral or negative), significance (imperceptible, slight, moderate, significant or profound), duration (temporary, permanent, short-term, medium-term or long-term) and type (cumulative, indeterminable, irreversible, residual, synergistic or 'worst case').

The following factors have been considered for this Environmental Impact Statement when determining the significance of the impacts, both positive and negative, of the proposed scheme on the various aspects of the receiving environment:

- The quality and sensitivity of the existing/baseline receiving environment.
- The relative importance of the environment in terms of national, regional, or local importance.
- The degree to which the quality of the environment is enhanced or impaired.
- The scale of change in terms of land area, number of people impacted, number and population of species affected including the scale of change resulting from all types of impacts.
- The consequence of that impact/change occurring.
- The certainty/risk of the impact/change occurring.
- Whether the impact is temporary or permanent.
- The degree of mitigation that can be achieved.

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 EIS documents for significant developments in this country. A broad outline of the scale of impacts is given in **Table 1.1**.

Where mitigation in the form of design measures have been suggested throughout the evolution of the Environmental Impact Statement, these have been incorporated into the scheme design as far as is possible from an engineering perspective.

Table 1.1: General Criteria used to Quantify the Potential Impacts of the Proposed Scheme

Degree of Impact/Significance Level		Definition of Impacts
Profound	Significant Impact	An impact, which obliterates sensitive characteristics.
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.

2 SITE LAYOUT AND CONSTRUCTION

This E.I.S. forms part of a planning application to Limerick County Council on behalf of Pat Kenny, Coolanoran, Newcastle West, Co. Limerick for permission to construct two Poultry Houses, along with all ancillary structures (to include meal storage bins, soiled water tanks, etc.) and associated site works.

The E.I.S. relates to an application seeking planning permission for the erection of 2 poultry houses each with the capacity for 20,000 birds for the production of chicken for human consumption in welfare friendly system. Total site capacity upon completion of proposed development will be c. 80,000 birds. The proposed houses are to be constructed in accordance with, and to comply with, S.I. No. 14 of 2008 EUROPEAN COMMUNITIES (WELFARE OF FARMED ANIMALS) REGULATIONS 2008.

The applicant, Pat Kenny currently operates and manages the adjacent 2 poultry houses which currently have a capacity of 20,000 each.

There are 1 person employed directly at this site with additional jobs in the areas of transport, feed, hatchery, etc. indirectly employed. The operation of the proposed development will be along broadly similar principles to that carried out on existing poultry houses within the county; however it will be carried out in a welfare compliant environment. This will involve the feeding, management and husbandry of birds and general site management.

All birds produced on this site will be sent to the one of the chicken processing plants in Ireland which is:

- Carton Bros, Shercock, Co Cavan
- Western Brand, Ballyhaunis, Co. Mayo
- Cappoquin Poultry, Cappoquin, Co Waterford
- Shannvale Foods, Clonakilty, Co Cork

The total area of the site, incorporating existing and proposed areas is 1.8 Hectares with the proposed area of 0.8 hactares. The proposed poultry houses are proposed to be situated approximately 15m South West of the existing houses and approximately 400m from the road along the site's boundary.

The Pat Kenny's site at, Newcastle west, Co. Limerick is located within the town land of Coolanoran northeast of Newcastle west town centre adjacent to the N21 as shown on Figure 1.0.

The proposed development will be constructed on the existing site, at grid reference R 305 366 (O. S. Map no.64). The site is located in a rural farmland area, approximately 4km northeast of the town of Newcastle west.

The poultry complex is situated alongside a local country road (Third Class Road) which runs along the south western of the site in a north westerly direction and which connects to the N21 to the southeast and to northwest joins the R523 the local country road to Ardagh. The proposed houses would lie approximately 120 m from the road.

The nearest dwelling house is the developer's, at a distance of approximately 20m north of the site. The next dwelling house is approximately 50m from the site. The area is extremely rural and not highly populated. The site of the proposed house is currently used for silage cutting.

The site boundary is marked by a combination of hedgerows and fencing. The complex is situated on a flat ground and it is largely shielded from view from all directions due to the trees characteristic of the topography.

However every effort will be made by the developer to further obscure the complex from the surrounding locale, if necessary, by a combination of a further hedgerow, native trees, fencing or soil embankement.

Therefore the proposed development will not severely impact the landscape of the area and will blend with the existing agricultural units on the site.

The proposed houses in the proposed development would have a capacity of approximately 20,000 birds each and the house dimensions would be 75m x 14m. The maximum height of the proposed house would be approximately 4meters to apex.

The proposed soiled water tanks will be located at the front of the proposed poultry house and will have a capacity of approximately $16m^3$.

The site boundary is marked by hedgerows with fencing in some parts. The existing entrance located at the northern boundary would facilitate the proposed and existing house, as indicated in the Site Layout Plan (**Figure 5**).

Drainage:
Uncontaminated yard and roof runoff are diverted via the surface water gullies to a drain and piped into the site drainage ditch and the same will apply to the new house.

Foundation:
The proposed poultry house, as with existing house, would be constructed on an impermeable concrete foundation, to be laid by the developer or a hired subcontractor. This phase would take approximately two to three days.

Housing:
The housing will be installed by an approved contractor and will consist of a base of 3ft concrete wall, on which the prefabricated timber housing will be secured. The structure is insulated with 4" fibreglass wool.

Roofing:
The roofing will be an insulated timber construction, with an aluminium surface.

Wash Tanks:
The proposed wash tank of $16m^3$ capacity will be situated underground and adjacent to the proposed house and constructed of reinforced concrete. The tank construction will conform to the Department of Agriculture, Food and Forestry's Specification No. 123 "Minimum Specification Slatted Livestock Units: Reinforced Concrete Tanks" DAFF, 1994.

Feed Silo:
On completion of construction works, feed silo (approx. 7.6m high, 3.0m diameter) will be installed and will be placed adjacent to the new house.

Heating:
Gas heating will be installed in the proposed poultry house.

Feeding / Drinking Apparatus:
An auger style feeding system and nipple-type drinkers will be installed in each unit.

See Figures 5 and 6 for a description of the location of proposed housing.

Construction works are expected to occur over duration of approximately one month. The extra traffic and noise generated will be only temporary. Complaints are not expected from those living in and travelling through the area.

3 ALTERNATIVES

3.1 EXAMINATION OF POSSIBLE ALTERNATIVES

Schedule 6, Article 94 of the Planning and Development Regulations 2001 requires that:

Information to be contained in an Environmental Impact Statement shall include –

(1d) 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.

3.2 Alternative Sites

A review of Pat Kenny's owned property reveals that this is the only feasible available site for the construction of two poultry houses.

Acquiring property further away from the existing poultry operation has been ruled out as:

- Land would be expensive to acquire
- Construction costs would be more expensive as the proposed expansion of the poultry growing operation would be connected into the existing infrastructure, thus avoiding duplicate costs of constructing a new feeding, water and heating systems, electrical infrastructure and access.
- Operation costs would be more expensive as addition feed silos and pumping distances would be greater and electricity infrastructure would have to come from existing National Grid as opposed to existing on site electrical infrastructure.

3.3 Alternative Layouts

The layout of the site was considered for the proposed additional poultry house to minimise the operational cost of the development and consider animal welfare. However, the footprint of the additional two poultry houses is subject to a number of physical constraints. The site of the extension is restricted to land already in the ownership of Pat Kenny.

The proposed location is considered the best viable option due to the avoidance of disturbance of the birds during delivery and collection. The proposed location will aid the screening of the proposed poultry houses with the existing hedgerows will be retained where possible providing screening.

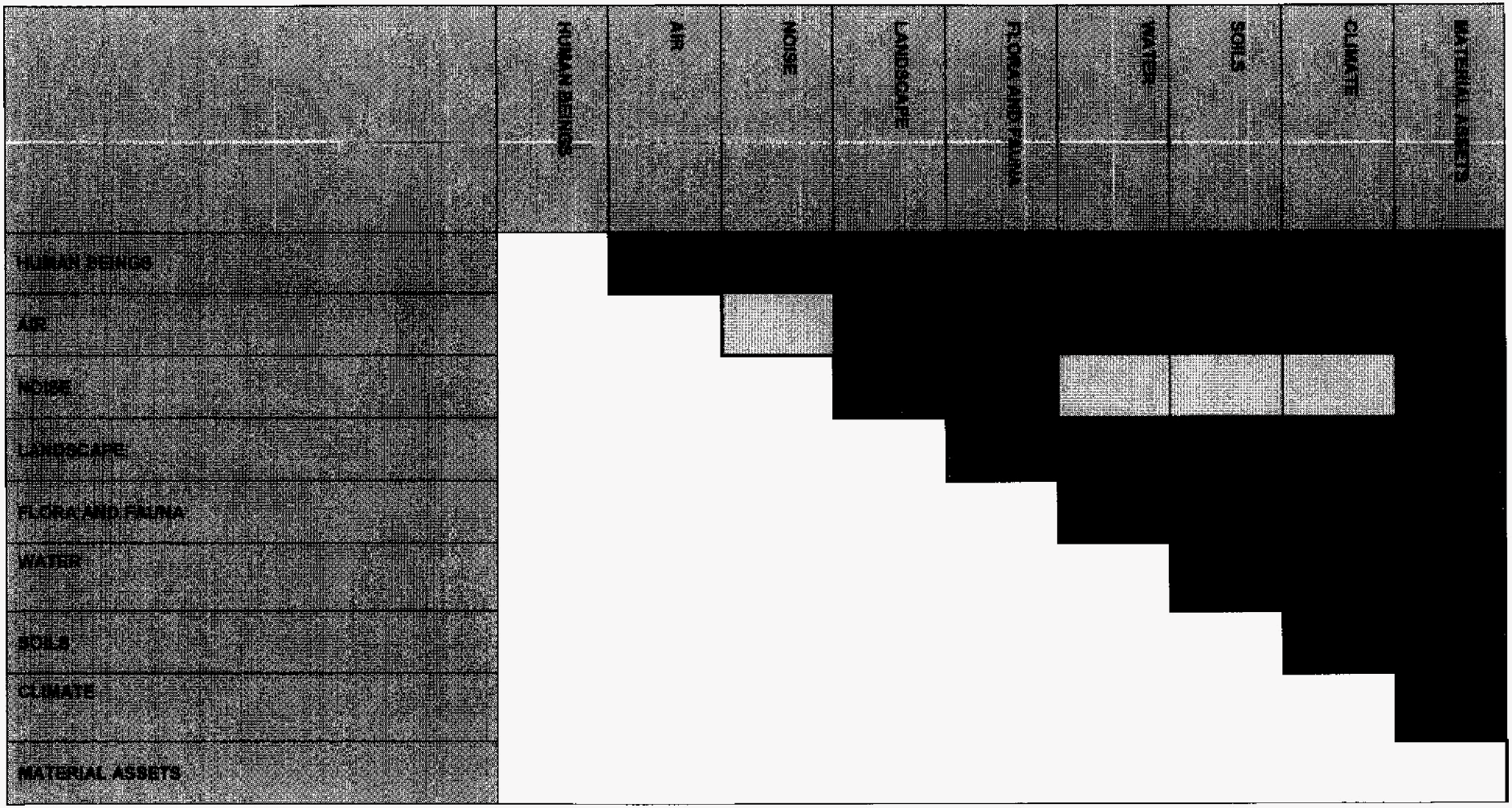
4 INTERACTIONS AND INTER-RELATIONSHIPS

In line with requirements of EC Directive 85/337/EC (as amended) and the Planning and Development Regulations 2001, the interactions/inter-relationship between the various environmental factors was also taken into account as part of the Environmental Impact Statement scoping and assessment. Where a potential exists for interaction between two or more environmental topics, the relevant specialists have taken the potential interactions into account when making their assessment and where possible complementary mitigation measures have been proposed.

Table 4.1 shows a matrix of significant interactions likely to occur from the proposed development. The boxes marked with a dot in **Table 4.1** indicate that a potential relationship exists between the two environmental factors. The level of interaction between the various topics will greatly vary but the table allows the interactions to be recognised and further developed where necessary. The table is constructed on the basis that an environmental subject has a potential inter-relationship both during the construction and operational phases of the proposed scheme. Summary details on the interactions are provided in **Table 4.2.**

To fully explain what is meant by an inter-relationship or interaction between environmental topics an example is provided. Noise can interact with a number of environmental aspects. Noise issues primarily feature under the heading of Human Environment and most of the standards and guidelines on noise relate exclusively to human beings. However, noise can impact on terrestrial fauna such as birds and material assets in the form of commercial livestock and so it must be taken into account as part of the agricultural and ecological assessment also.

Table 4.1: Interaction/Inter-Relationship Matrix - Potential Significant Interaction in the Receiving Environment



The following are the interactions anticipated from the proposed scheme.

Table 4.2.: Summary of Potential Interactions / Inter-relationships

Subject	Interaction with	Interactions / Inter-relationships
Air	Human Beings	Air quality is not a concern both at the local community level and on a broader national/global scale. In terms of the proposed poultry housing, dust (both during the construction phase and operation phase and its impact on the communities and residents adjacent to the poultry housing will be the main issue.
	Flora and Fauna	Vegetation can act as a purifier for air in absorbing CO_2 and giving out oxygen. Dust could affect fauna and flora during construction phase.
	Water	No Interactions / Inter-relationships
	Soils	Dust from exposed soils during construction could cause deterioration of air quality in the immediate vicinity of the development, notably dry weather periods.
	Climate	Local heating of air in the poultry houses could cause microclimate change in those areas.
	Material Assets	No Interactions / Inter-relationships
Noise	Human Beings	Sensitive receptors located close to the proposed extension may experience some increase in noise particularly during the construction stage.
	Flora and Fauna	Construction proposals could result in significant noise disturbance which may impact on the birdlife currently using the area.
	Material Assets	No Interactions / Inter-relationships
Landscape	Human Beings	The proposed development will have a minor actual and perceived landscape appearance in the area and directly impact on the local community and adjacent residences.
	Flora & Fauna	A small loss of hedgerow will occur which are very important wildlife corridors for animals. Improvement of the remaining hedgerow will be conducted post development.
	Water	No Interactions / Inter-relationships
	Soils	Movement of significant quantities of soil from one area to another can affect the appearance of the landscape. This will be necessary as part of the construction when material is removed from the construction zone.
	Material Assets	No Interactions / Inter-relationships
Flora and Fauna	Human Beings	There will be minor impact on the fauna and flora of the area as they suffer habitat loss and dislocation due to the proposed scheme.
	Water	During construction there is a minor risk of disturbance of drainage channels. This needs special precautions to avoid disturbance of sediments with consequent effects on fauna.
	Soils	Stabilisation methods for soft soil areas could alter the pH balance with consequent change in flora cover and species of fauna supported.
	Climate	No Interactions / Inter-relationships
	Material Assets	Land take will cause some local loss of range area for terrestrial fauna

Subject	Interaction with	Interactions / Inter-relationships
Water	Human Beings	No Interactions / Inter-relationships
	Soils	Rainfall runoff waters could cause deterioration of water quality of streams.
	Material Assets	No Interactions / Inter-relationships
Soils	Human Beings	Dust from exposed soils during the construction period can cause dust nuisance if not properly mitigated.
	Material Assets	Extraction, movement and placing of soils will have an energy input requirement.
Climate	Human Beings	No Interactions / Inter-relationships
	Material Assets	No Interactions / Inter-relationships
Material Assets	Human Beings	Current land-use will be permanently altered including the loss of ecological habitat and farmland.

PART II – ENVIRONMENTAL IMPACTS

This section of the Environmental Impact Statement describes the likely significant Environmental Impacts arising from the proposed extension to the poultry rearing operation at Coolanoran, Newcastle West, Co. Limerick. Where possible, design measures have been included to reduce or eliminate possible impacts but where this has not been possible, mitigation measures have been suggested to reduce or eliminate the identified impacts of the proposed development.

SECTION A – HUMAN ENVIRONMENT

This section of the Environmental Impact Statement deals with the potential effects of the proposed scheme on human beings.

These effects have been grouped into:

- Community Impact- the direct or indirect impact of the scheme on the population living or working in the general vicinity of the proposed poultry rearing operation at Coolanoran, Newcastle West, Co. Limerick.
- Air Quality Impacts – the impact of emissions generated by the proposed poultry rearing operation at Coolanoran, Newcastle West, Co. Limerick.
- Noise and Vibration Impacts - the impact of noise and vibration generated by the scheme on noise and vibration levels in the general vicinity.
- Landscape and Visual Impacts – the impact of the scheme on the aesthetic aspect of the landscape.

While human beings interact in some way with every aspect of the environment, the above interactions are considered the most significant in this case. The impacts on human beings in relation to effects on the natural environment are considered in **Section B** while the impacts of effects on material assets and architecture, archaeology and cultural heritage are considered in **Sections C and D** respectively.

5 AIR QUALITY AND CLIMATE

5.1 INTRODUCTION

The air quality study identifies, describes and assesses the impact of the proposed extension of the poultry growing operation on air quality and climate. Particular attention has been given to sensitive receptors, such as residential areas adjacent to the site and to the extent of the exposure of these receptors to airborne pollutants derived as a result of the development. This assessment was prepared in accordance with the EPA document - Guidelines on the Information to be contained in an Environmental Impact Statement (2002).

5.2 METHODOLOGY

5.2.1 Baseline Monitoring

5.2.1.1 Total Suspended Particles (Dust)

Dust generation, dispersion and deposition from the operation and construction activities are typically considered an environmental nuisance for sensitive receptors in the vicinity of a development. The potential sources of dust in the proposed development during the construction and operation phases are from trafficking and strong winds in dry conditions, (leading to suspension of dried soil particles from the proposed extension of the poultry growing operation). Earthworks during the extension construction are also a potential source of dust pollution.

As there are no set limits for dust deposition in Ireland, the TA Luft guidelines are referenced. TA Luft is the German Government technical instructions on air quality and referenced by the Irish EPA. Dust deposition monitoring using Bergerhoff-Gauges would be the recommended standard method meeting TA-Luft (1986) requirements. No monitoring was conducted at Pat Kenny's poultry growing operation as it would be considered that there is a minor risk of deposited dust level exceeding the TA Luft levels.

5.2.1.2 Odours

Attached is an odour management plan for Mr Kenny's Poultry operation in summary Mr Kenny is committed to operating the existing facility to best practice. The proposed poultry houses will have the best available water and feeding systems and following construction of this house Mr Kenny plans to modernise the existing poultry houses with the same water and feeding systems. The key factors for odour management plan with a poultry operation is:

- Avoiding the build-up of slurry or manure on concrete around buildings;
- Removal and disposal of dead animals;
- Drain maintenance;
- Bedding cleanliness;
- Management of drinking systems, with particular emphasis on frequently adjusting nipple and drip cups to bird eye level to avoid spillage and wet litter;
- Stocking density;
- Litter moisture content;
- Insulation of the buildings and the long term maintenance of that insulation;
- Ventilation and heating system;
- Type of heating;
- Composition of the feed, particularly its oil and fat content and its protein content.

Mr Kenny has never received a complaint directly in relation to his poultry operation from a local resident, Local Authority, EPA, HSE, etc. In previous planning application there have been complaints to the planning authority in relation to odours.

As part of the Odour management plan Mr Kenny is committed to doing what ever is necessary to avoid complaints and if necessary is committed to the installation of odour abatement technology such as bio-scrubber or bio-filters. Mr Kenny Poultry farm has a good record with Bord Bia audits and other audits such as Entegra (UK) audit.

Although odour generated in the operation may be more detectable at certain times, as partly influenced by prevailing weather conditions, the townland and surrounding townlands are well accustomed to occasional odour from this type of operation. This in mind however, odour levels generated are not expected to cause a significant nuisance in the surrounding area, as the operation will be management to the best possible level. Attached as part of the planning application is an odour management plan covering all aspects of the current and proposed expanded operation.

5.3 DESCRIPTION OF BASELINE AIR QUALITY

5.3.1 Site Location

The location of the proposed development at Pat Kenny's poultry growing operations is at Coolanoran, Newcastle West, Co. Limerick. The site is located 4.5 km to the south west of Newcastle West, Co Limerick, approximately 40km southwest of Limerick City. The village of Strand is located to the south, approximately 1.5 km from the proposed development. The townland of Coolanoran is situated south of Gorteenreynard, to the north the townland of Ballyowen. The site is west of Cloonsherick and to the east is Arranagh.

5.3.2 Existing Sources of Air Emissions

This facility with its existing poultry house has an existing impact to air quality as a result of emissions from combustion of LPG to heat the houses. The town of Newcastle West is located approximately 3.5 km northeast of the proposed site Pat Kenny's poultry operation. The main source of air pollution would arise from domestic and commercial fuel combustion. Emissions from oil combustion include mainly carbon monoxide, nitrogen oxides, sulphur dioxide and particulates as well as greenhouse gases.

5.4 IMPACTS

5.4.1 Dust

Dust levels generated by the development, both in the construction and operational phase, would be negligible. During the operational phase thorough cleaning of the houses between batches will ensure that the emission of dust will not be an issue. Minimal levels of dust will be generated, during the construction phase. Such dust will only be evident on the site and will not impact on dwellings and other buildings in the vicinity of the site, which are situated far enough from the operation so as not to be effected by any dust generated. Regular washing of the yard areas and periodic rainfall will also mitigate any dispersal of dust generated by site traffic. An adequate ventilation system employed in the houses will ensure no nuisance of dust within the houses. Any dust dispersed around the yard areas as a result of the ventilation systems in the houses will be cleaned up regularly and will not cause any problems off site.

5.4.2 Odour

Routinely the poultry houses are cleaned out between batches approximately every seven weeks, and the cleared out litter and manure is taken away by a licensed contractor in adequately covered vehicles. Wash water generated from the cleaning of the houses will be stored in an underground tank at the end of each house, which would be adequately covered and certified by an engineer. Additionally littler generated in the houses is cleaned out and removed between batches resulting in levels of litter in wash water are negligible.

5.5 MITIGATION MEASURES

5.5.1 Dust

During the operational and construction phase of the poultry growing facility all efforts will be made to ensure no dusting occurs and a wheel wash facility will be put in place. Top soil will be removed off-site and stored appropriately if there is an excess following construction.

5.5.2 Odour

The Odour Management plan is Mr Kenny statement of intent on how odours will be managed from the proposed and existing site.
The following measures will ensure little or no impact from odour on the surrounding environment:
Good practice in terms of:

- Poultry house temperature control
- Carcass storage and removal from site
- Thorough cleaning out of the poultry house between batches
- Regular yard cleaning
- Strict adherence to good land spreading practice

No complaints of odour or dust have been received in relation to the existing poultry houses directly to Mr. Kenny, but there have been complaints to the planning authority since the initial planning application. Therefore the commissioning of an additional poultry house is not expected to cause a nuisance in the surrounding locality.

In the event that an odour nuisance is occurring from the poultry litter, the mitigation measure will be the use of a masking agent, which is a chemical component in an open-air spray specifically designed to mix with the fugitive odour. These masking agents typically have pleasant odours designed to "mask" the unpleasant odour.

5.6 CONSTRUCTION IMPACTS AND MITIGATION

It is proposed to use local source rock and concrete for the supply of rockfill and processed aggregate. The facility roads are constructed of rock fill and topped with fine aggregates.

5.6.1 Impacts

Construction activities e.g. excavation, earth moving etc. may generate quantities of construction dust, particularly in drier weather conditions. The extent of any construction dust generation depends on the nature of the construction dust (soils, sands, gravels, silts etc.) and the construction activity. The potential for construction dust dispersion depends on the local meteorological factors such as rainfall, wind speed, wind direction and periods of dry weather.

The issue of construction dust dispersion may be exaggerated with vehicles transporting sands/gravels/soils etc. to and from the site having the potential to cause an environmental nuisance.

The effect of construction activities on air quality, in particular construction dust, will not be significant following the implementation of the proposed mitigation measures outlined below. The main environmental nuisance associated with construction activities is dust.

5.6.2 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 an environmental nuisance.

- Hard surface roads shall be swept to remove mud and aggregate materials from their surface.
- Any un-surfaced roads shall be restricted to essential site traffic only.
- All vehicles exiting the site shall make use of a wheel washing facility, prior to entering onto public roads, to ensure mud and other wastes are not tracked onto public roads. This water will be collected into one of the existing wash water tanks
- Public roads outside the site shall be regularly inspected for cleanliness, and cleaned as necessary.
- Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to wind.
- Diesel engines of plant machinery and trucks shall be properly maintained so that they do not discharge excessive quantities of visible smoke likely to result in a local nuisance.

5.7 MONITORING

There is no proposed monitoring for dust at the Poultry growing operation. If any complaints are received a follow-up investigation will be initiated, as soon as feasible and all results made available to the Local Authority and EPA for Inspection.

Routine odour surveys will be completed by an appointed person following the EPA Air Guidance on Odour Assessment (AG5) will be initiated and these reports will be retained on-site.

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. In the event of Odour nuisance an investigation following the EPA Air Guidance on Odour Assessment (AG5) will be initiated

6 NOISE

6.1 INTRODUCTION

Any sound, which can cause nuisance or a deterioration of amenities or quality of life, is examined in this chapter. Noise is a feature of most structural developments particularly during the construction phase. This will be the case during the construction of the proposed expansion of the poultry operation. Noise on a daily basis will result from regular operation of checking the stock, water and feed systems and deliveries.

An appraisal of the potential impacts from noise generated by the proposed expansion to the poultry growing operation on the surrounding environment was carried out by Montgomery EHS. The study identifies, describes and assesses the impact of the proposed extension in terms of noise. The assessment focuses particularly on noise impacts on residential locations (sensitive receptors) in the vicinity of the proposed development.

6.2 METHODOLOGY

Baseline noise information for this study was collected through a noise survey conducted in accordance with ISO 1996 '*Acoustics: Description and Measurement of Environmental Noise*'. Noise levels during the operational phase of the development were predicted using ISO 9613 '*Acoustics: Attenuation of Sound during Propagation Outdoors.* Operating noise limits have been set using the Integrated Pollution Prevention & Control Licence conditions.

The noise survey results are presented in terms of the following three parameters:

- LAeq is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period.
- LA10 is the sound level that is exceeded for 10% of the sample period. It is typically used as a descriptor for traffic noise.
- LA90 is the sound level that is exceeded for 90% of the sample period. It is typically used as a descriptor for background noise.

The "A" suffix denotes the fact that the sound levels have been "A-weighted" in order to account for the non-linear nature of human hearing. All sound levels in this report are expressed in terms of decibels (dB) relative to $2x10^{-5}$ Pa.

6.2.1 Baseline Noise Survey

A baseline noise survey was conducted as part of this noise assessment at locations adjacent to the proposed extension and its nearest noise sensitive locations. The survey was carried out in December 2011 and measurements were made over intervals of 15 minutes during the day. Noise measurements were made at the locations described in **Table 6.1**. These locations are also shown in **Figure 13.**

Table 6.1: Description of Noise Monitoring Locations during Baseline Survey

Key Reference	Description
1	North of poultry house.
2	Entrance road to Pat Kenny
3	North West of site
4	North East of site.

6.2.2 Noise Criteria

Typical conditions for sites, licensed by the Environmental Protection Agency (EPA) in order to control noise from the site are outlined below. These conditions stipulate operating noise levels that should not be exceeded at any noise sensitive location surrounding the site. The following sound pressure limits are set down by the EPA.

Daytime	55dB $L_{Aeq\ 15mins}$
Night time	45dB $L_{Aeq\ 15\ Mins}$

Daytime is normally defined as 08:00 to 22:00 hours and night time is usually defined as 22:00 to 08:00 hours. The noise criteria outlined above are also in line with the World Health Organisation (WHO) guidelines for community noise. These guidelines recommend a noise level of 55dB L_{Aeq} within outdoor living areas in order to avoid serious annoyance during daytime and evening and a level of 45dB L_{Aeq} outside bedrooms during night time periods in order to avoid sleep disturbance.

These noise level limits will also be used as the target criterion for the operation of the expanded poultry operation.

6.3 DESCRIPTION OF EXISTING ENVIRONMENT

6.3.1 Existing Noise Levels

The noise climate in the vicinity of the existing site is relatively low. The operation of the existing poultry operation involves site transport traffic (cars, delivery and collection trucks), feed and water system, etc., which at present do not contribute to any significant noise levels at the nearest noise sensitive locations surrounding the site.

Noise levels measured at noise sensitive locations to the site, located within along the road leading to the site. The movement of vehicles along the road were the main noise contributors within this area.

6.3.1.1 Baseline Survey Results

The baseline survey carried out as part of this EIS assessment has indicated that noise levels are within the EPA typically IPPC Licence guidance levels of 55dB L_{Aeq} for noise during the daytime and 45dB L_{Aeq} during the night time period at noise sensitive properties. The results of the baseline noise survey are summarised in **Table 6.2**.

The long term monitoring was under taken at Pat Kenny's and John Holland residences which took place over 3 weeks. The monitoring commenced prior to empting out of the birds from the houses until the houses where restock.

Table 6.2: Existing Noise Levels Measured During EIS Baseline Survey

Location	Time	L90	Leq	L10	Survey Description	Notes
1	09:32	45	49	42	Measurement taken at boundary of residence	Cars passing
2	10.03	43	48	40	Measurement taken at boundary of residence	No Major Noise sources
3	10.34	46	52	41	Measurement taken at entrance of residence	Vehicles audible from N21

Table 6.3: Existing Noise Levels Measured During EIS Baseline Survey at Pat Kenny's

Date	LAeq	LA90	LAeq	LCPeak
18/01/2011	51.6	57.25	45.90	81.95
19/01/2011	52.8	58.61	46.99	84.55
20/01/2011	53.1	58.90	47.23	83.50
21/01/2011	53.3	59.21	47.47	85.03
22/01/2011	51.5	57.21	45.87	81.72
23/01/2011	51.2	56.87	45.60	78.92
24/01/2011	49.5	54.98	44.08	81.10
25/01/2011	50.1	55.50	44.55	79.01
26/01/2011	51.5	57.15	45.82	80.70
27/01/2011	51.2	56.88	45.60	79.61
8/01/2011	51.3	56.94	45.65	78.84
29/01/2011	51.7	57.39	46.01	84.00
30/01/2011	51.1	56.73	45.45	82.01
31/01/2011	50.4	55.94	44.85	79.52
01/02/2011	48.8	54.13	43.40	78.73
02/02/2011	49.1	54.53	43.72	79.44
03/02/2011	48.9	54.32	43.55	78.80
04/02/2011	49.2	54.58	43.76	77.32
05/02/2011	49.1	54.50	43.70	77.11
06/02/2011	50.1	55.61	44.58	81.22
07/02/2011	50.2	55.72	44.68	80.07
08/02/2011	49.2	54.56	43.75	77.32
09/02/2011	49.6	55.01	44.10	78.48