Poultry Farm

ENVIRONMENTAL IMPACT STATEMENT

In respect of a proposed development involving the construction of 1 no. poultry houses including all ancillary facilities at:

CORLAT,
SMITHBORO,
CO. MONAGHAN

EPA Licence No.
P0853-01

On behalf of:

JFC CHICKEN'S LTD.
CORLAT,
NEWBLISS,
CO. MONAGHAN
APRIL 2017

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A. NON-TECHNICAL SUMMARY

This Environmental Impact Statement (E.I.S.) has been prepared by C.L.W. Environmental Planners Ltd. on behalf of JFC Chicken's Ltd., Corlat, Newbliss, Co. Monaghan in respect of the proposed development of 1 No. poultry house (for Broiler rearing) together with all ancillary structures and associated site works, on and or adjacent to an existing poultry farm. The E.I.S. has been prepared by Mr. Paraic Fay B.Agr.Sc, and Mr. Oliver Leddy B.Agr.Sc. of C.L.W. Environmental Planners Ltd. with the assistance of persons and bodies referred to hereafter. The farm currently operates under Licence No. P0853-01 granted by the Environmental Protection Agency.

The proposed development is to be completed adjacent to the applicants existing 3 No. Broiler houses at Corlat, Smithboro, Co. Monaghan. The E.I.S. has been prepared after an Environmental Impact Assessment (E.I.A.) of the proposed development carried out by C.L.W. Environmental Planners Ltd., in accordance with the Planning and Development Acts 2000-2013, Planning & Development Regulations 2001-2013 and the Protection of Environment Act 2003.

The existing farm operated by the applicant is located adjacent to the site of the proposed development and has been operated as a poultry farm for in excess of c. 25 years. It consists of 3 No. Broiler rearing houses with a current capacity for c.95-100,000 birds, together with all ancillary structures and facilities necessary for the operation of this enterprise. A Licence (Reg. No. P0853-01) was granted for the existing farm in 2009, which will be reviewed to accommodate the proposed development and increase in bird numbers. The existing and proposed poultry farming activities are the only agricultural activities carried out on this site by the applicant, with bovine farming activities carried out on the adjoining lands.

The proposed development of 1 No. Broiler rearing house will accommodate c. 50,000 birds, and will be completed adjacent to 3 No. existing houses. The capacity of the farm upon completion of all proposed developments will increase from c.95-100,000 to c. 150,000 birds exceeding the threshold required for the preparation of an Environmental Impact Statement 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 this Schedule which would have more than 40,000 places for poultry."***

The existing manure store on site provides 1,890 m^3 storage capacity to service the existing / proposed development.

The existing/proposed manure storage facilities will provide the required manure/litter storage capacity for c. 4.5 batches. As there will be additional storage space for 1 batch on the floor of the poultry houses this will provide 5.5 batches of manure storage space. As there are c. 7 batches in the year this capacity will be in excess of the 6 months requirement as stipulated by S.I. 31 of 2014, i.e. the Nitrates Directive. The additional structures and site works required as part of the proposed development will include meal storage silo(s), soiled water collection tank, and gas storage tanks etc.

The proposed development will be located in the townland of Corlat, Smithboro, adjacent to the existing poultry farmyard complex. The applicant is highly experienced in poultry farm management, and in particular the management of Broiler rearing enterprises. The operation of the proposed development will be integrated, in so far as is possible, with the operation of the existing farming activities. The management principles and production process are similar for the existing and proposed developments. The proposed development will provide significant economies of scale for the applicant.

The capacity of this farm is and will be in excess of that for which a Licence from the Environmental Protection Agency (E.P.A.) is required. An application for review of the existing Licence will be made to the EPA prior to commencement of activities in the proposed development. This EIS will be submitted to the EPA as part of the Licence Review application process. The present enterprise provides part-time employment for the applicant, however upon completion of the proposed developments there will be close to full time employment for the applicant.

The site of the existing activities, and proposed development, drains naturally through field drains which flow North West via land drains to the Lisgall Stream and from there to the Magherarney River, a tributary of the Finn River. The site, existing and proposed, is located in the North Western River Basin District. Storm water from roofs and clean yards will discharge to field drainage via a storm water collection system. The storm water discharge points will be regularly checked, inspected and monitored as is currently occurring on site. There will be no discharge of any soiled water/effluent from the site to any watercourse or to groundwater.

The site is in a rural agricultural area c. 3 km Southwest of Smithboro, and 4.5 km's Northeast of Newbliss . The activity on the farm is, and will be, a poultry farming activity appropriate to the area and consistent with the development plan for Co. Monaghan. The site is well serviced by the current road infrastructure and is accessed by a local road which subsequently connects with the Regional Road, the N54 Clones-Monaghan Road, c. 3 km from the site. The proposed developments will be completed adjacent to the existing structures and will use the existing access routes and site infrastructure. The poultry house for which permission is sought would be located to the rear of the existing poultry houses, c. 90-100m from the adjoining local road.

The topography of this site means that the existing established poultry houses while elevated are not overly intrusive in the landscape. The proposed new house finished floor level is slightly above that of the existing houses, reflecting the surrounding ground level. The location of the proposed development, in close proximity to the existing development, and screened by the existing development together with the proposed external finishes and landscaping will mean that the development will be well integrated into the existing landscape/farmyard.

The site is located c. 8 Km from the closest Natura 2000 site – Kilrosky Lough Cluster.

Hazardous waste generated at this site will be in the form of spent fluorescent lighting tubes. The annual quantity of each of this class of waste generated on the site is and will be mimimal. It is proposed to accumulate the used fluorescent tubes in a specialised storage area in the site pending periodic disposal at the Monaghan Co. Co. civic amenity centre. Alternatively these tubes may be returned to the supplier.

As the existing houses have been well maintained it has been ensured that only the most efficient systems of poultry husbandry are in operation on this farm. All existing systems are well maintained and serviced so as to ensure that they are operating to maximum efficiency. The proposed poultry house will be similar in design to the 3 No. existing houses.

The type of house existing on this farm is a simple closed building of block and timber/wood construction, 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 in operation and are in line with Best Available Techniques (BAT) requirements. A button nipple drinking system is used in the existing houses as this is the most efficient type of drinking system and it ensures that the manure/litter remains as dry as possible.

The proposed poultry house will be of a steel or timber portal frame construction on a concrete base. Walls will be plastered blockwork / concrete, with a pre-fabricated panel construction and the roof cladding will be box profile juniper green (or similar). The proposed poultry house will be

- c. 112.8 m by 21.35 m with an overall height of c. 6 m,

The existing manure store will provide c. 1,890 m^3 of storage. This in addition to the c. 421.88 m^3 capacity (1 batch) provided within the poultry houses and will provide a total of 2,312 m^3 of manure storage capacity, or c. 9.4 months manure storage capacity, well in excess of the 6 months storage capacity as required by S.I. 31 of 2014, i.e. the Nitrates Directive.

The production process on this farm will be similar for both the existing and the proposed houses, and will be in line with the requirements of the Department of Agriculture, Food & Marine and Bord Bia. The applicant is 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 from the hatchery as day olds, and will remain in the houses until c. 5-6 weeks of age when they are transported to Carton Brothers / Manor Farm for processing. The existing and proposed houses will operate in an all in - all out basis to maintain a single age profile, and to maintain the health status of the birds, within each house.

The poultry manure from this farm is/will be removed off site by an authorised contractor, George Coulson, on behalf of the applicant. The contractor provides the machinery and labour necessary for cleaning out the houses and is responsible for cleaning of the houses, arranging transport and making arrangements for the receipt of this material. George Coulson carries out this function for a number of poultry farmers so as to provide a consistent, reliable service to all farmers and to provide a consistent supply of manure to the compost yards/recipient farmers. The estimated manure production as a result of the proposed development will be a total of c. 1,181.25 tonne / annum an increase of c. 396 tonnes from the c. 785.5 tons/annum produced by the existing enterprise.

The existing/proposed manure storage facilities will ensure that the storage of manure/organic fertiliser on the site will be in compliance with S.I. 31 of 2014, i.e. the regulations that have given effect to the Nitrates Directive in Ireland. Soiled water from the existing, and proposed

development where applicable, will be collected in c. 4 (3 existing and 1 proposed) No. dedicated soiled water collection tanks, located on site. This soiled water will then be applied to the adjoining landholding, in accordance with S.I. 31 of 2014.

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 a site of the existing and/or proposed capacity does 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/or manure is being removed from the site, however this occurs for only a short period in every cycle. The production cycle allows for c. 7 flocks/annum.

Well maintained, properly ventilated poultry farms with modern manure removal will minimise any potential adverse odour impact and will minimise odour outside the confines of the site/immediate area. Transient increases in odour emissions may be associated with manure removal from the site. The applicant has not experienced any complaints arising from the existing activities on the site.

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 authorised contractor. Michael Galligan is an authorised contractor who regularly remove these carcasses, and any other such material to an authorised Animal By-Products plant at Harefort Ltd., Redhills, Co. Cavan, in compliance with existing requirements.

The potential of the proposed development, either independently and/or when assessed cumulatively with the existing development, and/or other developments in the area, for adverse impact on environmental parameters is negligible, if any, because;

- of the nature and scale of the proposed development,
- wastes would be removed from the site by authorised waste contractors for either disposal or use elsewhere (Appendix 10),
- 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 landholding adjoining the site.

While waste generated in the site would be accumulated and stored temporarily in the site, there would be no disposal or recovery of any waste undertaken on the site.

1. Introduction and Development Context

This Environmental Impact Statement (EIS) was compiled following an Environmental Impact Assessment (E.I.A.) of a proposed development on an existing poultry/broiler rearing farming enterprise, at Corlat, Smithboro, Co. Monaghan, operated by the applicant, JFC Chicken's Ltd.. The E.I.S. is to be submitted to Monaghan County Council in support of an application for Planning Permission to construct 1 No. Proposed poultry house (for Broiler rearing), together with all ancillary structures and associated site works, on and or adjacent to an existing poultry farm at Corlat, Smithboro, Co. Monaghan. Please refer to the site plan contained in Appendix No. 2 and the drawings contained in Appendix No. 3.

The E.I.S. is drafted with particular regard to the Planning and Development Acts 2000 - 2013, the Planning and Development Regulations 2001 - 2013 and in particular Article 94 and Schedule 6 of the 2001 Planning and Development Regulations, and the Protection of Environment Act 2003. It is submitted to provide information that may be helpful to the planning authority in making its decision on the application for the proposed development and to comply with Schedule 5, Part 2, 1 (e) (i) of S.I. 610 of 2001, which specifies a requirement for an EIS for poultry units exceeding 40,000 places for poultry.

1(1) Description of the Site and the proposed development

- ***1(1)(1) Scale of existing and proposed developments.***

The existing farm, which currently operates under Licence No. P0853-01, consists of 3 No. poultry/Broiler rearing houses currently operating at a total capacity of c.95-100,000 broilers, together with all ancillary structures and facilities necessary for the operation of this enterprise. The currently proposed development is for 1 No. broiler house together with all ancillary structures and associated site works. The capacity of the farm following completion of the currently proposed developments will be a maximum of c.150,000 broilers. The current EPA Licence was granted for the existing farm in 2009 which will be reviewed to accommodate the proposed developments and increase in scale. The existing and proposed poultry farming activities are the only agricultural activities to be carried out on these lands by the applicant.

The proposed development will operate along similar management principles and production processes, to the existing development. Appendix. No. 15 contains a copy of the Licence issued to this farm.

The proposed development will be carried out, to ensure compliance with the Nitrates directive (Appendix 21), animal welfare legislation, and to ensure that this farm operates at maximum, efficiency, flock performance and environmental standards. This proposed development will be located in the townland of Corlat, Smithboro, adjacent to the site of the existing farmyard/poultry housing.

The capacity of this farm is in excess of that for which a Licence from the Environmental Protection Agency (E.P.A.) is required (i.e. in excess of 40,000 places). A Licence was granted

by the E.P.A. in 2009 to the applicant for the operation of the existing farm, and a Licence Review application will be submitted to the Agency prior to the commencement of proposed activities on site. The enterprise currently on site provides part-time employment for the applicant; however upon completion of the proposed development it will provide close to full time employment and will ensure the economic sustainability of his farming enterprise.

The purpose of the existing/proposed development is for the rearing of birds from day olds to market weight (c. 5-6 weeks). These birds will then be transported to the processor, (Carton Bros. / Manor Farm) for the production of poultry products for human consumption. The scale of the proposed farm and the licensable activity is typical of current industry standards. At present all birds from this poultry farm are processed by Carton Brothers, Shercock, Co. Cavan.

The proposed poultry house will have an internal floor area of;

- c. 2,400 m^2c. (112.8 m by 21.35 m) with an overall height of c. 6 m.

A soiled water collection tank of c 15.9 m3 capacity will be located at the rear of the proposed poultry house.

The existing manure store is c. 818.9m^2, c.43.41 metres long by c.19 metres wide. This existing store, and the storage provided in the existing/proposed poultry houses will provide sufficient storage capacity for poultry litter to satisfy the requirements under S.I. 31 of 2014 for the existing/proposed development.

There are 3 No. existing soiled water tanks on the farm. These are located adjacent to the concrete apron at the rear of two of the houses, and at the front of one house. A new tank is to be installed to the rear of the proposed new house resulting in a capacity of c. 15.9 m^3. Manure will be removed 6-8 times per annum at the end of each batch. This is to be moved off-site by the appointed contractor and/or to the dedicated manure store if required.

The proposed buildings will be sympathetic to the surrounding landscape in terms of their design and appearance, and where possible will be similar to the existing buildings on the farm and will not be intrusive in the landscape. The F.F.L.[1] of proposed house will be at a slightly higher level to the existing poultry house developments, and located to the rear of same. The drawing details with regard to the proposed developments are included in Appendix No. 3.

[1] Finished floor level

1(1)(2) Planning/Licensing History

The subject site is an existing poultry farm and the existing farm has developed over a period of c. 25 years. Site Location Maps are contained in Appendix No. 2. Planning permission has been granted by Monaghan County Council on the subject site, and a Licence has also been granted by the Environmental Protection Agency and these are summarised as follows:

A. Planning Permission

File Number	Applicant Name	Development Address	Development Description	Local Authority Name
95378	James Corr	Corlatt Newbliss Co Monaghan	erection of a slatted house and a chicken house at corlatt. ...	Monaghan Co.Co.
92599	James Corr	Corlatt Newbliss	retention of poultry houses (2) ancillary buildings, yard entrance m.o.p....	Monaghan Co.Co.
90513	James Corr	Corlat Smithboro	erection of 2 chicken houses m.o.p. 568/90...	Monaghan Co.Co.
071005	James Corr	Corlat, (Dartree By), Smithborough, Co. Monaghan	erect one number dry poultry litter storage shed and all associated site works...	Monaghan Co.Co

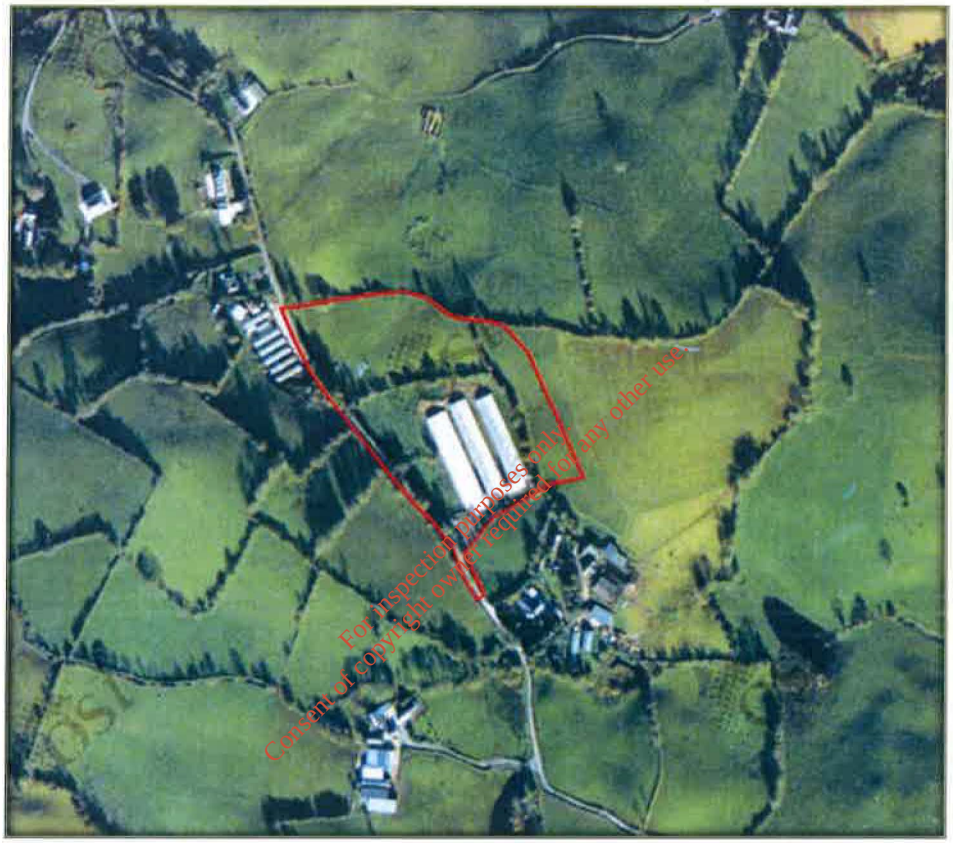
B. E.P.A. Licence

A licence was granted by the E.P.A. to JFC Chickens' Ltd. on 21st May 2009, Reg. No. P0853-01. This licence is the licence under which the existing farm currently operates. A copy of same is enclosed in Appendix No. 15.

This licence will be subject to review to accommodate the proposed developments and same will be advanced with the E.P.A. upon receipt of planning permission.

- ***1(1)(3) Site Location.***

The site/existing farm is located in west Co. Monaghan, c. 3 km Southwest of Smithboro and c. 3 km from the N54 National Route, at National Grid Reference E258174, N327720. The site comprises an overall area of c. 4.0118 hectares owned by the applicant with a total of c. 43.96 hectares within the landholding. The existing and proposed poultry farming activities are the only agricultural activities to be carried out by the applicant on this site, although the applicant has additional lands within proximity of this site, upon which bovine farming activities are carried out.



The activity on this site is, and will be, a poultry farming activity similar to the current activities on site and consistent with the development plan for Co. Monaghan. The existing site, while rurally located is serviced by a good road network, accessed by a local road which subsequently connects with the National Secondary Route, the N54, c. 3 km from the site. The surrounding area consists of rolling agricultural lands/drumlins, with the predominant land use being agricultural.

This proposed site is accessed via an existing entrance that currently services the poultry farm. The proposed developments will be completed adjacent to the existing structures and will use the same entrance and access routes. The poultry houses for which permission is sought would be located not less than c. 90-100 m from the public road, and will be developed in line with the majority of the existing developments on site.

The location of this farm yard is identified on the location maps (1:10,560 & 1:2,500) included in Appendix 1, which also indicates the extent of the land owned by the Applicant at this location. The layout of the proposed development is shown on the Site Layout plan included in Appendix 2. The proposed site is compact, and is designed to be safe, secure and efficient in operation. There are no third party dwellings located within c. 235 metres of the proposed development, with the proposed development being located on the opposite site of the existing development, when viewed from the closest third party dwellings.

- ***1(1)(4) Topography***

The proposed development site is typical of the drumlin topography of the area. The site while not being overly obtrusive is at a raised elevation to the local road. The site is well suited to the proposed development, as although there will be a certain amount of excavation this will serve to integrate the house into the existing site, to the rear of the existing developments with no adverse visual impact. The subject site topography is similar in nature to the general topography in this area and the finished floor level of the proposed developments will be slightly higher than the existing structures. As can be seen from the plans submitted with this application the floor level of the proposed development has been set so as to ensure that the development is integrated, in so far as is possible with the existing structures on the farm to ensure that there is no adverse visual impact on the surrounding area, while minimising the extent of ground works required.

The rolling nature of the surrounding lands, existing development and hedgerows, and proposed landscaping gives considerable screening to the existing/proposed site.

- ***1(1)(5) Physical description of the existing/proposed development***

As the existing houses have been well designed and constructed the most efficient systems are in operation on this farm. All systems are well maintained and serviced so as to ensure that they are operating to maximum efficiency. Appendix 2 includes detailed drawings of the proposed development. The proposed development will involve clearing and/or excavation of the proposed site, and removal of soil/subsoil to be utilised to level lower lying areas of the farm/site. Subject to preparation of the site thereafter it will be in order for the laying on of services, pouring foundations and construction of the house and all associated works.

Broiler rearing design principles follow a simple template and have not changed significantly over recent years. The type of poultry housing existing on this farm is designed for Broiler rearing and comprises a simple closed building of block and timber/wood 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 in operation and are in line with Best Available Techniques (BAT) requirements. A button nipple drinking system is used in the existing houses as this is the most efficient type of drinking system and it ensures that the manure remains as dry as possible.

The proposed development of 1 No. additional Broiler rearing house will be of similar design to the existing houses, albeit larger in scale, and will also comply with BAT requirements. Birds will be housed on the floor and the house will be open plan with no internal divisions similar to the existing houses. The proposed poultry house will be of a steel portal frame construction on a concrete base. Walls will be plastered blockwork / concrete, with a tongue and groove and /or pre-fabricated panel construction. The roof cladding will be box profile juniper green (or similar) cladding.

The proposed poultry house will be,

- c. 112.8 m by 21.35 m with an overall height of c. 6 m.

The existing manure store is c. 818.9m^2, c.43.41 metres long by c.19 metres wide. This existing store, and the storage provided in the existing/proposed poultry houses will provide sufficient storage capacity for poultry litter to satisfy the requirements under S.I. 31 of 2014 for the existing and proposed development.

Please refer to Appendix No. 7 for details on manure storage calculations.

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(1)(6) Operation of the Existing/Proposed Development***

The main activities at this farm occur during normal working hours between 06.00 a.m. and 20.00 p.m. 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.

The production process on this farm will be in line with the requirements of the poultry processors, Carton Brothers, and customers of the processors. Carton Brothers arrange for a number of farm inspections to be carried out during the year, so as to ensure that all of their production standards and requirements are being complied with. In addition to the above the applicant is also subject to inspections from Bord Bia, the Department of Agriculture, Food and Marine, Monaghan Co. Co., and the Environmental Protection Agency.

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 houses. There are four stages of rations fed throughout the lifecycle, Starter, Grower 1, Grower 2 and Finisher. Each diet is tailored to meet the birds 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 which achieve set target food conversion efficiencies. Total Feed Consumption/annum is expected to be c. 3,832.5 tonnes. All feed to be used on this farm will be supplied from specialised feed suppliers and mainly from Carton Brother's mill Kolbe Feeds.

The applicant is responsible for the maintenance and preparation of the houses, management of the birds, feeding, water and ventilation systems and for ensuring that all of the required records are maintained for each flock. The stock for this farm will be brought from the hatchery as day olds, and will remain in the houses until c.5-6 weeks when they will be caught by specialist bird catchers and transported by HGV to the processors at Shercock, Co. Cavan. The existing and proposed houses will operate in an all in - all out basis to maintain a single age profile, and to maintain the health status of the birds, within each house. The production cycle on the farm is c. 5-6 weeks with 1 week empty after every batch. This results in c. 7 batches per annum.

Day 1 – Birds Moved to the farm. (It may take 2 days to fill all houses)
Day 35 – 42 – Birds removed from the houses.
Day 43 – 45 – Manure Removed from the houses.
Day 45 – 47 – Houses Washed down and left to dry.
Day 50 – Houses bedded with shavings and left ready for the next batch of birds.

The poultry manure from this farm is/will be removed off site by an authorised contractor, George Coulson, on behalf of the applicant. The contractor provides the machinery and labour necessary for cleaning out the houses and is responsible for cleaning of the houses, arranging transport and making arrangements for the receipt of this material. George Coulson carries out this function for a number of poultry farmers so as to provide a consistent, reliable service to all farmers and to provide a consistent supply of manure to the compost yards/recipient farmers. He is registered with the Department of Agriculture for the transport of Animal By-Products (Registration No. GCO). The estimated manure production as a result of the proposed development will be c. 396 tonnes/annum in addition to the 785.5 tonnes/annum produced by the existing enterprise.

As previously detailed the proposed manure storage facilities will ensure that the storage of manure/organic fertiliser on the site will be in compliance with S.I. 31 of 2014, i.e. the regulations that have given effect to the Nitrates Directive in Ireland. Additional details provided by the contractor have been included as Appendix No. 5.

Soiled water from the existing, and proposed development where applicable, will be collected in dedicated soiled water collection tanks, located at the end of each house. Estimated soiled water production will increase to c. 241.5 m^3/annum. This soiled water will then be applied to the applicant's farmland in line with S.I. 31 of 2014. A map is included in Appendix 8 indicating the location and extent of farmland managed by the Applicant.

These lands comprise c. 43.96 hectares suitable for the application of soiled water. The lands are currently stocked at an organic N stocking rate of 42.56 kg organic N/Ha. The application of an additional 241.5 m^3 of soiled water to these lands with an Organic N content of c. 1 kg organic N/m^3 will increase the overall stocking rate to c. 48 kg organic N/Ha, well inside the 170 kg organic N/Ha limit.

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 used to deliver feed to the farm. A vital part of maintaining health within the unit is the 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 their 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(2) Characteristics of proposed development designed to avoid, reduce and if possible, remedy significant adverse effects.

The following mitigating measures have been proposed to reduce any adverse impact identified:

(i) Provision of sufficient and safe access to the site and measures to avoid excessive soiling of the public road during construction on the site.

(ii) Preservation of existing trees and hedgerows surrounding the site together with sympathetic design and layout so as to screen the installation from obtrusive view and to allow it to be absorbed into the rural landscape.

(iii) Provision of a storm water drainage system to properly collect and discharge to field drainage all clean rainwater from roofs and clean surfaces, as described in Appendix No. 3 and Appendix No. 16.

(iv) Provision of soiled water drains to properly collect any effluent or soiled water and divert it to the nearest soiled water tank.

(v) The collection and the removal from the site of all manure. All soiled waters to be collected and used on Applicant's farmlands.

(vi) All construction waste to be managed in accordance with the Construction and Demolition Waste Management Plan contained in Appendix No. 19.

(vii) 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 the requirements of the EPA Licence . See Appendix No. 15.

(viii) 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 authorised contractor.

Michael Galligan is an authorised contractor who regularly removes these carcasses, and any other such material to an authorised Animal By-Products plant at Harefort Ltd., Redhills, Co. Cavan, in compliance with existing requirements. Correspondence in this regard is included hereafter, in Appendix No. 6. Ensure collection of animal tissue from the site is in appropriate watertight and covered containers, and timely removal so as to ensure minimal generation or release of odours either at the site, or during transit to the disposal/recovery destination.

(ix) Comprehensive cleaning and hygiene routine to minimise potential odour from the site.

(x) Specially formulated diets to maximise performance and reduce nutrient excretion. See Appendix No. 9.

(xi) Proper maintenance and inspection procedures to ensure 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 (electricity and gas) consumption.

(xii) The applicant is a highly skilled, efficient and competent operator of this farm

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.

2. Scoping of Environmental Impact Assessment

The scoping of this EIS was carried out by the design team in conjunction with the applicant, and was completed in line with previous submissions to the Environmental Protection Agency, Monaghan County Council and other Local Authorities. Other organisations and bodies consulted directly/indirectly include: -

- Geological Survey of Ireland.
- Met Eireann.
- Central Fisheries Board.
- Office of Public Works.
- Department of Agriculture, Food and the Marine
- Department of the Environment, Community and Local Government
- National Parks and Wildlife Service.
- Teagasc, Johnstown Castle.
- Environmental Protection Agency
- Myles O'Reilly Civil Engineering Services.
- Noreen McLoughlin, MSc, MCIEEM, Whitehill Environmental

The scope of the Environmental Impact Assessment conducted in respect of the proposed expansion includes the following:

- The requirements of the EU Directive, the *European Communities (Environmental Impact Assessment) Regulations, 1989*, and the *Local Government (Planning and Development) Regulations, 2001 to 2013*.
- Draft Revised Guidelines on the Information to be Contained In Environmental Impact Statements published by the Environmental Protection Agency in September 2015.
- Draft Advice Notes for Preparing Environmental Impact Assessment published by the Environmental Protection Agency in September 2015.

- The requirements of Monaghan County Council, as elaborated in the current *County Development Plan 2013 - 2019*.
- The likely concerns of local residents and other third parties.
- The nature, location and scale of the proposal.
- The existing environment, as well as any vulnerable or sensitive features and current uses.
- The likely and significant impacts of the proposed development on the environment.
- Available methods of reducing or eliminating undesirable impacts.

The *European Communities (Environmental Impact Assessment) Regulations, 1998 to 1999* has laid down a standard list of areas of the environment that must initially be addressed in any EIS. These areas comprise of:

- Human Beings.
- Flora.
- Fauna.
- 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 EIS 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 potentially significantly impacted by this development have been assessed in detail in this EIS.

Any development may result in indirect effects, along with the direct effects of construction. The potential impacts that the proposed development could impose on each aspect of the environment were sub-divided into the following categories, and analysed separately:

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

	NO DEVELOPMENT	CONSTRUCTION PHASE	OPERATIONAL PHASE
Human Beings	≈	✓✓	✓✓
Flora	≈	✗	≈
Fauna	≈	✗	≈
Soil	≈	≈	✓✓
Water	≈	✗	✗✗
Air	≈	≈	✗
Climate	≈	≈	≈
Ambient Noise	≈	✗	≈
Cultural Heritage	≈	≈	≈
Landscape	≈	✗✗	✗
Material Assets			
▪ Traffic	≈	✗	✗
▪ Land Use	≈	≈	✓
▪ Employment	✗	✓✓	✓

Key:

≈	No Impact		
✗	Slight Negative Potential Impact	✓	Slight Positive Potential Impact
✗✗	Moderate Negative Potential Impact	✓✓	Moderate Positive Potential Impact
✗✗✗	Significant Negative Potential Impact	✓✓✓	Significant Positive Potential Impact

2(1) Data required to identify and assess the main effects that the proposed development is likely to have on the environment

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

This is considered in some detail later in this statement.

2(2) Project Type as per EPA Guidelines

The EPA has recently published Draft Guidelines on the Information to be contained in an EIA and Draft Advice Notes for Preparing EIS. In these guidelines they have classed development listed under the *Planning and Development Regulations 2001 fifth schedule* into various Project Types. For each project type they have outlined the information to be contained within an EIS for a project of this type. In this case, a poultry farm is classed under *Project Type 13 Pig Rearing Installations* and *Poultry Rearing Installations*.

Under *Project Type 13* the EPA Guidelines outlines the information to be contained within the Development Description and the description of the Environmental Effects. Appendix No. 4 includes the summary provided in these guidelines for this *Project Type 13*. It outlines possible mitigation options for this type of development. The Guidelines describe the principle concerns likely to arise as stemming from the issues of manure handling (mainly slurry/manure) and odours. The significance of impacts is very much a factor of the site's proximity to sensitive receptors although it highlights that such projects frequently dispose of wastes at locations which are not adjacent to the animal rearing operations.

While these Guidelines remain in a Draft format consideration has been given to these in the preparation of this EIS. Details of Project Type 13 from the EPA Guidelines have been included as Appendix No. 4.

3. Examination of Alternatives

- ***3(1) Alternative site***

The proposal to expand the applicants existing poultry unit represents a logical approach to the development of his poultry farm. Use of lands directly adjacent to the existing poultry farm yard allows for the sharing of existing resources to service the proposed expansion. It also allows for more efficient on-site operations so that the operator does not have to move between sites while carrying out his daily work.

It is intended that if and when the proposed development for which permission is being sought is authorised and constructed it will be integrated into the existing farm and farmyard enterprise operated by the applicant. This will ensure that access, services, labour and ancillary equipment can be easily shared. Developing close to the existing site will also take advantage of efficiencies of scale with regard to deliveries, carcass and manure collection etc. and would comply with Monaghan County Council requirements for agricultural buildings as detailed in the County Development Plan.

Accordingly, development on an alternative site is deemed impracticable and/or less suitable and therefore no other site was considered.

- ***3(2) Alternative Layout and Design***

As previously stated the layout of the proposed housing was designed to ensure that the proposed developments were integrated into the existing site with minimal, if any, adverse visual impact on the surrounding landscape. The proposed layout was also designed so as to ensure adequate access on site for all traffic associated with the existing and proposed developments, and to ensure that the site is contained, safe and efficient in operation. The layout of the proposed poultry house, adjacent to the existing developments, will minimise any potential adverse visual impact.

Existing hedgerows/landscaping will be maintained where possible and strengthened where necessary, with additional landscaping implemented/to be implemented strategically to further screen the existing farm and/or proposed developments from view.

As previously stated the design of the proposed housing is in line with BAT requirements. The exterior finish, where practicable will be green or similar in colour to the existing houses, and will be sympathetic to the local environment. All roofing materials will be dark in colour. As the proposed design is in line with BAT requirements and as natural/dark coloured finishes are proposed, no other alternatives were deemed appropriate.

No other alternative sites, layouts and/or designs were deemed satisfactory and/or appropriate, as the proposed design;

- Complies with the requirements of the Nitrates Directive.
- Satisfies the applicants need for efficiencies of scale while not requiring significant additional lands.
- Is in line with BAT requirements, and,
- Will be well integrated into the landscape and existing farmyard with the use of similar construction techniques, natural/dark coloured finishes as proposed, and additional landscaping where required.

4. Environmental Assessment

4(1)(1) Description of the physical characteristics of the proposed development and the land use requirements during construction and operation.

The physical characteristics of the existing/proposed development will comprise;-

- An entrance onto a public road.
- Maintain existing hedgerow plantations along the site boundary. Additional landscaping/hedgerows to be completed where necessary.
- The manure store will provide manure storage facilities in line with the requirements of S.I. 31 of 2014.
- The proposed buildings are of a form, design, colour and materials that are sympathetic to their surroundings, and similar in nature to the existing structures. The proposed poultry house is;
    - ❖ c. 112.8 m by 21.35 m with an overall height of c. 6 m,

  The proposed buildings will be a steel/timber portal frame construction on a concrete base, with pre-fabricated and/or tongue and groove timber panel walls or pvc coated metal cladding on an insulated concrete stub wall. [See engineers drawings contained in Appendix No. 3].
- Underground, concrete soiled water storage tank in which soiled water would be collected and stored pending application to the applicant's farmland.

All of the structures on the site will be screened or blended in to the surrounding landscape by the external finish proposed for the structures, and existing hedgerows and/or proposed landscaping where applicable. The external finish to the proposed building will be dark coloured or substantially similar to the existing structures on the farm, unless otherwise advised by Monaghan Co. Co. and/or the E.P.A. Any additional landscaping to be introduced on the site will in accordance with the Dept. of Agriculture, Food and the Marine Specification, S135. (Please refer to Appendix No. 18)

During the construction phase, which will extend over a period of c. 3 - 4 months, the proposed development area would be a typical farmyard construction site. All of the construction materials and equipment required would be transported in to the site by road. The construction contractor would be required to remove any construction/demolition wastes other than soil from the site for disposal or recovery in authorised sites elsewhere.

4(1)(2) **A description of the main characteristics of the production processes, nature and quantity of materials used.**

The production processes which currently/will take place on the existing/proposed site would be:-

- The management, feeding and care of the birds.
- The despatch of all carcasses and other solid waste materials from the site for disposal or recovery at agreed/approved sites and
- The collection of all poultry manure/organic fertiliser generated within the site pending removal from the site by registered contractor.
- The collection of all wash waters generated within or around the site in soiled water collection tanks pending application to adjoining farmland.

The applicant is approved under the Bord Bia approval system, as per the Poultry Products Quality Assurance Scheme (PPQAS), and anticipates that this approval will be extended to incorporate the proposed development, once completed. As part of this approval the daily procedure will follow the Bord Bia Poultry Products Quality Assurance Scheme Producer Requirements.

A vermin control programme is implemented on site and recorded on a daily/weekly basis.

The main input materials to be used in the licensable activity are water and animal feed. Water for stock and for washing is acquired from an on-site well and/or the Stranooden Group Water Scheme. Estimated water use will be c. 6,825 m^3 per annum for the activity.

Poultry feed will be specifically formulated rations, formulated and prepared by a specialised poultry feed supplier such as Kolbe Feeds Ltd. All feeds used will be appropriate to the nutritional requirements of the birds, while at the same time minimising nutrient excretion. As previously stated there are 4 rations used in each production cycle. Please refer to additional information contained in Appendix No. 9. Total feed consumption/annum is expected to be c. 3,832.5t.

Electricity would be used to power all the processes and services on the site. A back-up generator will be available in the event of a power failure.

Gas is used for heating the houses and houses have been, and will be, insulated to ensure that this is used as efficiently as possible. In order to minimise gas usage, all houses are well insulated.

Wood shavings to be supplied by a local supplier.

4(1)(3) **An estimate, by type and quantity, of expected residues and emissions (including water, air and soil pollution, noise vibration, light, heat and radiation) resulting from the operation of the proposed development**

The expected residues and emissions that will result from the operation of the existing/proposed development are referred to below. The proposed residues/emissions will increase proportionately with the increase in scale.

Lighting in the premises will in so far as is possible, be by fluorescent tubes and other energy efficient lighting devices. Spent fluorescent and other specialised light tubes are hazardous waste. The number of tubes to be replaced annually will be small. They will be accumulated in the store area pending delivery periodically to a local Civic Bring Centre and/or returned to the supplier by/or on behalf of the applicant. Lighting of the site will be the normal for farmyard sites and will not exert influence or interference outside the site boundary.

Supplementary heating is to be provided by gas burners. The amount of gas used will vary depending on outside climatic conditions. Energy efficiency will be a key deciding factor in the selection of a heating system and modern poultry heating systems are considerable more efficient than those used in older poultry houses. The amount of gas required has been/will be significantly reduced due to high insulation standards.

General wastes such as packaging, paper, disposable clothing etc. will be collected regularly by a local contractor and delivered to the Landfill facility. It is intended that the frequency of collection of all wastes produced on site will be in line with E.P.A. and/or legislative requirements in this regard.

Dead animals and animal tissues will be accumulated in a sealed leak proof container on site for collection by Michael Galligan at 1 - 2 week intervals for transport to an authorised Animal By-Products facility at Harefort Ltd., Redhills, Co. Cavan. It is intended that the frequency of collection will be in line with E.P.A. requirements in this regard. See correspondence which is included in Appendix No 6.

The organic fertiliser / poultry manure from this farm is/will be removed off site by an experienced contractor, George Coulson on behalf of the applicant. The contractor provides the machinery and labour necessary for cleaning out the houses and is responsible for cleaning of the houses, arranging transport and making arrangements for the receipt of this material. The estimated total manure production upon completion of the proposed development will be c. 1,181.25 tonnes/annum.

The existing/proposed manure storage will provide in excess of 6 months storage capacity for the proposed development, as required by S.I. 31 of 2014, i.e. the Nitrates Directive. Soiled

water from the existing and proposed development will be collected in a number of dedicated soiled water collection tanks, located at the end of the poultry houses. This soiled water will then be applied to the applicant's landholding in accordance with the Nitrates Regulations.

Normal operations on the site of the proposed development, as for the existing activities, will not cause any pollution of soil.

Noise generated in the proposed/existing development in the site will not exceed legal limits at the site boundary. As detailed in Noise survey data contained in Appendix No. 17 of the E.I.S. (relating to a number of other intensive agricultural sites), noise is not expected to cause a nuisance at this site. The requirement in relation to noise is addressed under Condition No. 4.1 of the Licence issued to this farm.

There would not be any source of significant *vibration* on the site. There will not be any significant *dissipation of heat* from the proposed/existing development. There will be no source of *radiation* on the site that could exert significant influence outside the site.

Mitigation measures are to be implemented to prevent any significant effect of the proposed/existing installation, and the activities carried out therein, on environmental parameters. These measures are directed towards ensuring that the systems for collecting wastes and removing them from the site for appropriate treatment in authorised waste treatment installations will be adequate for that purpose.

Waste materials generated on the site under normal operating conditions, and/or during site development works, will be collected and transported off the site by appropriately authorised waste contractors to be consigned for disposal, recovery and/or recycling in appropriately authorised installations. These requirements are detailed in conditions attached to the EPA Licence granted to this farm.

Implementation of the control measures proposed will ensure in so far as it is possible that significant adverse effects on environmental parameters will not occur and that accidental emissions are unlikely from the existing, as well as the proposed, development.

4(2) Description of the aspects of the environment likely to be significantly affected by the proposed development.

It is envisaged that no aspects of the environment will be significantly affected by this proposed development. The potential effects on the environment may be subdivided into effects on human beings, flora and fauna, soil, water, air, the landscape and material assets including archaeological heritage. There is no known potential for any adverse issues in relation to architectural or cultural heritage.

- ***4(2)(1) Effect on human beings***

Significant effects on human beings are not anticipated. There are no third party dwellings close (i.e. within 235 metres) to the proposed development as to be adversely affected by, or experience significant impairment of amenity due to the proposed development.

The proposed development is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience of other similar sites indicates that the legal limits for such emissions, 55db daytime, 50db evening time and 45db night-time are highly unlikely to be exceeded beyond the site boundary. There are no processes proposed which will constantly or regularly release odorous 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.

The existing farm and site of the proposed development are not located close to and/or likely to adversely impact on any areas of Primary or Secondary Amenity value as detailed in the Monaghan County Development Plan 2013 - 2019. Please refer to Appendix No. 11 in this regard. Based on experience at similar sites elsewhere in the country significant effects are not anticipated. Where nuisance effects occur, people object and under statutory requirements their objections will have to be investigated and have to be corrected if found to be real and justified. This existing development has not received any complaints of this nature to date.

- ***4(2)(2)Effect on flora and fauna***

The site of the proposed development is immediately adjacent to and/or currently forms part of an existing farmyard area. The flora and fauna around the site has developed in this context. Much of the site and surrounding area to be developed is improved agricultural grassland. The area to be developed is relatively small and represents an extension to existing site / farm buildings. Ground works and land profiling will be kept to a minimum outside the footprint of the proposed buildings. The proposed development is not near to or likely to adversely impact on any areas of primary or secondary amenity value or views from scenic routes. Structures and new paved surfaces will cover a significant fraction of the site. The changes will affect such a small area that any impact will be close to zero or neutral with the local area.

The proposed development has undergone Appropriate Assessment Screening (See Appendix 22) and same has determined no significant impact on Natura 2000 sites. The site is not located close to and/or likely to adversely impact on any Natura 2000 sites, the closest being Kilrosky Lough Cluster, some 8 kms away.

The site of the existing and proposed development is located in the North Western River Basin District. There will be no discharge of soiled water or effluent from the existing and/or proposed development to surface water and so the proposed development will not have any significant impact on surface waters. See Appendix No. 13 for surface water quality data for this area.

The existing rodent control programme in operation on the poultry farm will be extended to include the proposed development. The existing programme as implemented on site is in line with Bord Bia and Department of Agriculture, Food and The Marine requirements and is working satisfactorily. Detailed records regarding bait point location, frequency of baiting and products used are maintained on site. The revisions to this programme will cover the inclusion of the proposed development on the bait point map and designation of a number of bait points around this development. No other pests will be attracted to the site due to the proper storage and disposal of all wastes, proper storage of all feedstuffs and maintaining the houses and external areas in a clean and tidy manner.

Weed control will be carried out around the site as required to reduce any cover for pests. It is considered that the development, managed as is proposed, which will have to operate under License regulations, will have no measurable impact on either flora or fauna outside the site boundary.

Given that the area of the proposed site is an intensively managed agricultural area with poor biological diversity, retaining as much as possible of the existing landscaping/hedgerow around the site boundary (with the exception of that required to be removed to facilitate the proposed development), together with any proposed additional landscaping, should maintain biological diversity on the site.

- ***4(2)(3)Effect on Soil***

The structures proposed for the site would be constructed on land that is already part of a farmyard/immediately adjacent to the existing farmyard. There is no significant potential for any effect on soil, outside of the development area.

If anything there is the potential for some positive benefits on soil on potential customer 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 fertiliser. 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. At present all organic fertiliser is destined for compost production, and/or customer farmers for use as organic fertiliser in accordance with S.I. 31 of 2014.

See Appendix No. 12 for general soil classification for this area. The subsoils in this area are described as drumlin soils with the site located in Soil association 28 (Grey Brown Podzolics (60%), Gleys (20%) and Interdrumlin Peat and Peaty Gleys (20%)). Parent material is mostly Mostly Uper Carboniferous limestone and shale – sandstone glacial till.

Please refer to GSI soil and subsoil classification as detailed below:

Teagasc Soils

IFS Soil Type:	AminPD
IFS Soil Description:	Derived from mainly non-calcareous parent materials
Soil Group:	Surface water Gleys, Ground water Gleys
Parent Material Code:	TLPSsS
Parent Material Name:	Till derived chiefly from Lower Palaeozoic rocks
Parent Material Description:	Sandstone and shale till (Lower Palaeozoic)
Category:	Mineral poorly drained (Mainly acidic)
Legend:	AminPD - Mineral poorly drained (Mainly acidic)

Subsoil

Parent Material:	TLPSsS
Subsoil Category:	Till derived chiefly from Lower Palaeozoic rocks
Subsoil Description:	Sandstone and shale till (Lower Palaeozoic)
Category:	Till derived from Lower Palaeozoic sanstones and shales
Legend:	TLPSsS - Till derived from Lower Palaeozoic sanstones and shales

- ***4(2)(4)Effect on Geological & Geomorphological heritage of the area.***

The structures proposed for the site would be constructed on land that is already part of a farmyard/immediately adjacent to the existing poultry farm. There is no significant potential for any effect outside of the development area.

The site of the proposed development is predominantly a poultry farm site. Given this location adjacent to existing farm structures the proposed development will not have any adverse impact on the geology of the area. In addition as the proposed development will be integrated into the existing farmyard site the proposed development will not have any adverse impact on the landscape and/ or the geomorphological heritage of the area.

- **4(2)(5)Effect on Water**

Adverse effect on *ground water* from the proposed development should be nil, as there will be no process discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. The proposed development, as per the existing activities, will be carried out on an impermeable concrete base, with proper storm and soiled water separation and collection facilities. It should be noted that the proposed development, will operate on a dry manure basis, whereby the manure will be removed from the houses at the end of each batch either off site or directly to the manure store. It will be stored as a 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 the poultry houses or manure store, and appropriate measures have been put in place for the collection, management and storage of same.

The application site lies within the Northwestern River Basin District, the Erne Hydrometric Area and the Erne Catchment. The site of the existing activities, and proposed development, drains naturally through field drains which flow North West via land drains to the Lisgall Stream and from there to the Magherarney River, a tributary of the Finn River. There are no streams or drains within or adjacent to the application site. The closest waterbody is a stream c. 500 m north of the site. The EPA refer to this stream as the Lisgall Stream and this is a tributary of the Finn River

Storm water from roofs and clean yards will discharge to field drainage via a storm water collection system. The storm water discharge points will be regularly checked, inspected and monitored as is currently occurring on site. There will be no discharge of any soiled water or any effluent from the site to any watercourse or to groundwater.

The EPA have defined the ecological status of the Lisgall Stream and the Magheramey River as moderate. Under the requirements of the Water Framework Directive, this is unsatisfactory and good status must be achieved by 2021.

The volume of water needed for the farm once the proposed development has been completed will increase proportionately with the increased stock levels. The existing water supply on the farm is from the on-site well / Stranooden group water scheme which will also serve the proposed development. According to the Geological Survey of Ireland (please refer to Appendix No. 20) the aquifer classification appropriate to the site and the surrounding area is a Poor Aquifer - Bedrock which is generally Un-Productive except for Local Zones (Pl), with a vulnerability rating of Low (L) vulnerability. As the proposed development, will operate on a dry manure basis, whereby the manure will be removed from the houses after each batch and transported off site or moved directly to the manure store, there is minimal risk to ground water supplies in the area of the site.

Adverse effect on surface water from the proposed development should be nil, as there will be no process discharge to surface water and minimal risk of accidental leakage or spillage of polluting liquid on the site. The only discharge from the site to surface waters will be the discharge of rainwater from roofs and clean yards to field drainage, which flows towards the adjacent watercourse (Finn River /Lisgall Stream, tributaries of the River Erne).

The Monaghan County Development Plan sets out a number of polices for the protection of Water. These have been considered in the design of the proposed development and are as follows.

Policies for Protection of Water (as per the Monaghan County Development Plan 2013 – 2019)

WPP 1 In assessing applications for developments the Council will consider the impact on the quality of surface waters and will have regard to targets and measures set out in the Neagh Bann and North Western International River Basin Management Plans and where appropriate the Blackwater, Glyde, Fane, Woodford and Erne East Water Management Unit Action Plans.

WPP 2 In assessing applications for development, the planning authority shall ensure compliance with the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009) and the European Communities Environmental Objectives (Groundwater Regulations, 2010 (S.I. No. 9 of 2010).

WPP 3 Protect known and potential groundwater reserves in the county. In assessing applications for developments the planning authority will consider the impact on the quality of water reserves and will have regard to the recommended approach in the Groundwater Protection Scheme for County Monaghan. The employment of the methodology identified in the Groundwater Protection Scheme for County Monaghan (available at www.gsi.ie) and Guidance on the Authorisation of Discharges to Groundwater (available at www.epa.ie) will be required where appropriate.

WPP 4 Require best practice in the design, construction and operation of expanding and new developments to ensure minimum effects on the aquatic environment. Sustainable Urban Drainage Systems, designed to ensure both water quality protection and flood minimisation should be included in developments for commercial, industrial, intensive agricultural, public and institutional premises with significant roof or hard surface areas and multiple residential developments.

WPP 5 Require submission of a water protection plan and detailed site drainage plans with all planning applications. Maps of sensitive areas and waters and a Water Protection Plan Checklist (Appendix 13) will assist in the preparation of plans at application stage.

WPP 6 Prevent further degradation of habitat by the promotion of riparian corridors and the prevention of any in stream works, or culverting of waterways unless in accordance with Inland Fisheries Ireland (IFI) guidance document Requirements for the Protection of Fishery Habitat During Construction and Development Works at River Sites. The IFI should be consulted prior to the submission of any plans involving works close to waterways.

WPP 7 No development shall be permitted within 200 metres of any lake that is the source of a water supply, where that development has the potential to pollute the lake.

WPP 8 Ensure that industrial or intensive agricultural developments generating manure, organic fertilisers or sludge, that are dependent on off-site recovery or disposal take account of sensitive area mapping including lands with impaired drainage/percolation properties and lands where rock outcrop and extreme vulnerability of groundwater is present. In consideration of the use of imported manure or sludge in sensitive areas, restrictions will apply in relation to water supply source catchments.

WPP 9 Details of land spreading arrangements of manures or sludge arising from industrial or intensive agricultural development shall be submitted to the planning authority with all planning applications.

WPP 10 Development within the vicinity of groundwater or surface water dependant Natura 2000 sites (Kilroosky Lough Cluster SAC) will not be permitted where there is potential for a likely significant impact upon the groundwater or surface water supply to the Natura 2000 site. Where appropriate, the applicant to demonstrate with hydrogeological evidence, that the proposed development will not adversely affect the quality or quantity of groundwater or surface water supply to the Natura 2000 sites.

WPP 11 Development which would have an unacceptable impact on the water environment, including surface water and groundwater quality and quantity, river corridors and associated wetlands will not be permitted.

WPP 12 Floodplains and riparian corridors will be maintained free from development to provide flood retention features within these areas.

In order to avoid any reductions in water quality in the area surrounding the proposed development and in order to protect the adjoining designated site, designated species and sensitive surface/ground waters, a number of mitigation measures have been planned for that will help to protect the local biodiversity of the surrounding area and to ensure the protection of local wildlife.

During Construction

- It is vital that there is no deterioration in water quality in the watercourses in the vicinity of the development. This will protect both habitats and species that are sensitive to pollution. Therefore, strict controls of erosion, sediment generation and other pollutants associated with the construction process should be implemented where necessary, including the provision of attenuation measures, silt traps or geotextile curtains to reduce and intercept sediment release into any local watercourses. *The protection of water quality in this area is vital.*

- Post construction surface water run-off from hardcore / concreted / tarmacadum areas should be directed into a soak-pit. If soak-pit disposal is not viable or practical, then surface water run-off from these areas should be treated via serviced sediment and oil interceptor traps, prior to discharge into the local watercourse.

- The applicant must follow the guidelines set out in the Department of Agriculture's *Explanatory Handbook for Good Agricultural Practice Regulations.*

- The proposed storage tanks must adhere to the Department of Agriculture's Farm Building and Structures Specifications. Before use, they should undergo an integrity test that is performed by a suitably qualified person. They should be inspected regularly for deficiencies.

- The applicant must ensure that any excavated soil is used / disposed of responsibly. Its disposal should not lead to the loss or damage of any natural or semi-natural habitats elsewhere. It should not be spread close to any local watercourse as it may result in an increase in the sediment load of that watercourse.

- Fuels, oils, greases and hydraulic fluids must be stored in bunded compounds well away from watercourses. Refuelling of machinery, etc., should be carried out in bunded areas. Stockpile areas for sands and gravel should be kept to a minimum size, well away from any drain or watercourse. .

- Any hedgerows that remain should be protected and maintained where possible. They should be carefully cordoned off from the development activities on site. If possible, a natural verge should be allowed to remain along these hedgerows. This will maintain the biodiversity on the site once the development is operational. It is illegal to remove hedgerows and trees during the bird nesting season.

- Any landscaping should involve the planting of native Irish species that are indigenous to the site. The characteristics of newly planted hedgerows should mimic those in the surrounding area.

- Bare soil should be seeded as soon as possible with grass seed. This will minimise erosion into local drains and watercourses.

During Operation

- All activities on site to be carried out in accordance with the Department of Agriculture, Food and Marine, Bord Bia, EPA and Monaghan Co. Co. requirements and specifications and/or industry standards.

- All organic fertiliser generated on 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. 31 of 2014.

- All potentially polluting products (fuels, detergents etc.) to be stored in appropriately bunded areas.

- Stormwater discharge points to be checked and inspected on a weekly basis 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.

- ***4(2)(6)Effect on Air***

The potential effects of the proposed development on air relate to the odour emissions that may be associated with poultry and poultry manure stored on site. While it would be practically impossible to separate the potential emissions from the proposed development once completed from the emissions out of the existing development on the site, it is safe to say that odorous emissions from the developed site as a whole are not likely to cause nuisance or impair amenity beyond the site boundary, with the possible exception of times when birds and/or manure is being removed from the site, *which will occur at the end of each batch, approximately 7 times/annum*.

A number of management practices will be implemented on site so as to minimise potential odour emissions from the existing and proposed developments,

- Proper storage of all wastes on site, and regular removal of same. Twice 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 minimise odour and maintain high health status.

- Regular cleaning of outside areas.

- Immediate removal of manure off site, wherever possible. Should manure be stored on farm, this should be transferred quickly to minimise potential odour emissions. Transport of manure off site to take place in properly designed and covered trailers.

- Proper stocking rate within the houses.

- 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. See Appendix No. 14 for met data for this area.

As detailed previously the proposed development is located a significant distance away from any Natura 2000 sites and emissions (incl. gaseous emissions) from the existing/proposed development are unlikely to adversely impact on same and/or on any other sensitive areas.

- ***4(2)(7) Effect on Climate***

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. Met Data details can be found in Appendix No. 14. Wind direction at the site is critical to odour movements and rainfall is critical factor in the application of manure. The prevailing wind in the Clones area is from the south-west. Rainfall in the customer farmlands ranges annually from 800mm -1000mm.

Large livestock populations and nitrogen inputs to soil generate approximately 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. N_2O emissions can be divided into three areas,

- Direct from agricultural soils and from agricultural production systems.
- Indirect emissions which take place after nitrogen is lost from the field
- Emissions resulting from agricultural burning.

Organic fertiliser from this farm will be used in compost production or 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. 31 of 2014, 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.

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. 31 of 2014 and where possible incorporated/ploughed into the soil as soon as practicable after application.

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

This development will have no significant adverse effect on climate.

- ***4(2)(8)Effect on Visual Aspects and Landscape***

Monaghan Co. Co. have prepared a Landscape Character Assessment, and the following categories have been included in the Monaghan Development Plan 2013-2019. There are nine main Landscape Character Areas (14 Landscape Character Types) within the County.

Landscape Character Areas are the unique individual geographical areas in which landscape types occur. They share generic characteristics with other areas of the same type but also have their own particular identity.

1 Sliabh Beagh Uplands
2 Blackwater Valley & Drumlin Farmland
3 Smithborough Hills
4 Clones River Valley & Farmed Uplands
5 Monaghan Drumlin Uplands
6 Mullyash Uplands
7 Ballybay/Castleblayney Lakeland's
8 Drumlin and Upland Farmland of South Monaghan
9 Carrickmacross Drumlin & Lowland Farmland

Landscape Character Types are distinct types of landscape that are relatively homogenous in character. They are generic in nature in that they may occur in different localities throughout any defined area. Nonetheless, where they do occur, they commonly share similar combinations of geology, topography, land cover and historical landuse. For example, blanket bog uplands are distinct landscape character types and are recognisable as such whether they occur in Monaghan or other counties.

1. Blanket Bog;
2. Drumlin Farmland
3. Drumlin Foothills
4. Farmed Foothills
5. Farmed Lakelands
6. Flat Riverine Farmland.
7. River Valley armland
8. Undulating Farmland
9. Upland Bog with Afforestation
10. Upland Drumlin Farmland
11. Upland Farmland with Afforestation
12. Upland Farmland with Rock Outcrops
13. Upland Plateau
14. Urban

The site of the existing poultry farm and site of the proposed development is located in an area referred to as the Monaghan Drumlin Uplands (LCA 5), and Upland Drumlin Farmland (LCT 10) in the Monaghan Landscape Character Assessment.

LCA 5: Monaghan Drumlin Uplands

This LCA extends across almost the entire width of the county. It is an upland landscape comprising upland drumlins and drumlin foothills which form a ridgeline associated with the Longford Down inlier, formed in the geological past. This elevated landscape overlooks the town of Monaghan from the south.

Key Characteristics

- Elevated landscape featuring drumlin hills and small to medium sized loughs. These drumlins are not so steep sided and they do not follow a particular strong alignment and as such, the pattern of glaciation is not very pronounced.
- Occasional rock outcrops on the eastern side near the townland of Annyalla.
- Occasional loughs and areas of marshland located between drumlin hills.
- Landuses mostly given over to pastoral farming. Hedgerows featuring native species define the field boundaries, some of these are cut and some are not cut or managed. Hedge trees are fairly frequent.
- Long ranging views to the south and the north can be gained at particular points along the highest elevations of this ridgeline. The views extend for many kilometres.

Landscape Description

This is a farmed upland landscape which is relatively remote, being distant and elevated topographically from major and minor towns or settlements. Nonetheless human activity in the form of farming and presence of farmsteads is quietly evident. The landscape pattern is relatively strong and takes the form of cut or managed hedgerows mostly with some hedge trees abounding pastoral fields. On the east side, many of these hedgerows feature gorse. Occasional clumps of deciduous woodland are located in this landscape. Small watercourses and streams are present albeit flow is very slow and sometimes stagnant. Occasional patches of marshland and areas of localised flooding are located in low lying areas. Dwellings are frequently well located in secluded locations on the lower slopes of the drumlin hills. Many of these are traditional or indeed of a modern simple design that sits well in this landscape setting.

Landscape Condition and Sensitivity

- Most of this landscape is in good condition. The summit or highest point along the ridgeline is likely to be highly sensitive to development because it is visually exposed for many kilometres.

- In general, this landscape would not be regarded as highly scenic and hence, the capacity to accommodate development without undue compromise to the farmed landscape pattern is good. Specific sites that carry landscape and ecological designations are outlined below.

Areas of Secondary Amenity Value

- SA 5: Rossmore Forest Park and Environs
- SA 6: Ulster Canal and Environs Views from scenic routes
- SV 9: View of St Macartens Cathedral Monaghan from Berry Brae (Route R162).

Ecological Designations –

Proposed NHAs

- Wrights Wood (NPWS site code 001612)
- Lisarilly Bog (NPWS site code 001781)
- Rafinny Lough (NPWS site code 001606)
- Cordoo Lough (NPWS site code 001268)
- Drumcor Lough (NPWS site code 001841)

LCT no 10 – Upland Drumlin Farmland

This landscape type occurs in two places in the County, one right at the centre of the County associated with the hills that overlook Monaghan Town, and the latter is located to the east near Mullyash.

Physical Data

- Elevation ranges from 110 to 190 m generally
- Geology comprises metasidements from the Ordovician Period in the Monaghan environs. Near the east, the principal rock types are metasidements and volcanics from the Silurian Period.
- Landcover comprises predominantly pasture.

Key Characteristics

- Elevated, rolling hills and drumlins with extensive long range views across the wider landscape.
- Poor to moderate quality pastoral farmland with wetland grasses. Fields bounded by hedgerows and fences.
- Small tracts of commercial coniferous forestry.
- Pockets of peatland habitat and scrub present throughout pasture.
- Proliferation of minor roads and individual farms and dwellings.

Description

The elevated landscape located around the foothills of Mullyash Mountain presents as an undulating or sometimes rolling plateau of large drumlin hills, from which significant and long ranging views across the wider landscape are available. The principal landuse is pasture, although the quality of land is at best moderate, with patches of scrub, gorse and peatbog present throughout the area. Fields are generally small and are defined with hedgerow boundaries, reinforced in places by simple fencing. The hedgerows are generally cut or managed and contain both beech (Fagus sylvatica) and oak (Quercus spp) some of which are maturing well. Many of the hedgerows and hedgerow trees in the higher parts of these area show signs of wind pruning and in places grazing by livestock. Small scale deciduous and coniferous woodlands occur in localised areas, the later of which tends to occur as either shelterbelts or small forestry crops. Neither is a dominant force within the landscape, the main tree cover of which is provided by hedgerow trees.

A multitude of small streams and small loughs occur throughout this LCT. Streams tend to be narrow, steep sided and fast flowing as they flow from their source catchment across this elevated area north and southwards towards lower lying areas. Farms and individual properties are for the most part well spaced and located sensitively as local topography and small shelterbelts provide screening. In addition to buildings, a number of transmission masts and pylons are present.

The nature of the proposed development, and its location on the site of/adjacent to the existing poultry houses will ensure that there will be no adverse impact on the local environment/landscape from the proposed development. The site is not located near to or likely to adversely impact any Special Areas of Conservation (S.A.C.), Special Protection Area (S.P.A.), Areas of Primary/Secondary Amenity Value and/or Views from Scenic Routes as listed in the Monaghan County Development Plan 2013 - 2019.

The proposed development represents an extension to an existing farm yard and so will have limited impact on the character of the surrounding landscape. The site of the proposed development being to the rear of existing developments will be general visually unobtrusive. It is not considered that the proposed development will have significant impacts on the landscape character of this area. The existing buildings will screen the proposed development and the existing vegetation will help to soften any visual impacts and additional landscaping maybe added where considered appropriate.

- ***4(2)(9)Effect 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 was observed as part of previous developments on this site. In addition, there is no visual evidence of any archaeological feature on the lands adjoining the site. There are no recorded sites within c. 240 m of the proposed development site as per the Archaeological Survey database. The closest recorded protected structure is a standing stone located c. 240 m north of the proposed development site. As any such sites are located a considerable distance from the proposed development it will not impact on same in any way.

- ***4(2)(10)Effect 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.

The potential impact of the proposed development on archaeology / cultural assets has been discussed previously. Material Assets that may potentially be affected by the proposed development include:

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

The proposed development is on an existing poultry farming site, in a predominantly agricultural area and development on this farm has previously been approved by Monaghan Co. Co. The proposed development is surrounded by agricultural farmland with some forestry and loughs in the surrounding area. The proposed development will not interact with any lands outside the confines of the site, except for the production of a valuable organic fertiliser which may 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 development has a longstanding history on the farm, is surrounded by agricultural lands and is located well away from any built up areas and/or development clusters. There are no third party residential dwellings within c. 235m of the proposed development site. The development will not impact on adjoining property values if for no other reason than there is an already established poultry farm on the site

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

The proposed development will require a portion of land upon which the proposed poultry house will be developed; however there will be no adverse impact outside of the development area. The proposed development will also involve the use of a limited amount of construction materials (including quarry products and other construction materials), however the extent of the development is limited in nature and the amount of resources required in the construction of the house, and potential adverse impact of same, is negligible when sourced from authorized sources.

The operation of the farm will require additional feed (classified as a renewable resource), gas and water. The applicant will operate modern feeding, ventilation and heating systems to minimize same. The farm does not require any major modifications to the existing electricity supplies, water or road infrastructure in the area.

4 (3) Description of likely significant effects of the proposed development arising from:-

(i) The existence of the proposed development

The proposed development is of average scale by current industry standards but it would 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 construction workers, supply of construction materials, and the installation of the required housing, water, feed and ventilation systems.

Its impact on the landscape will be minimal following the implementation of proposals in relation to location, finished floor level, proposed external finish and its integration into the existing site.

The long term impact on traffic on the local road as a result of the proposed development will not have a significant adverse impact. Any short term increase in traffic would be associated with the construction of the proposed development and would cease upon completion of the proposed development.

Construction traffic for the proposed development would be similar to that previously required for the existing development which caused no significant adverse impact.

Once the proposed development would be completed, there would be additional ***operational traffic*** due to:

- feed deliveries (increasing by c. 1 load/week, from c. 1.8 loads /week to 2.8 loads / week),
- manure transport (increasing by c. 2 loads/batch, from c. 4 loads /batch to c. 6 loads / batch on average), and,
- increased bird deliveries/collections (increasing by c. 1.1 load/week, from c. 2.6 loads /week to 3.7 loads / week),

All other traffic such as waste collection, delivery of shavings, gas, veterinary inspections, maintenance etc., will be integrated in so far as is possible into the existing visits to the farm.

Traffic to and from the site will be minimised by optimising load sizes. While there will be a minimal increase in traffic (c. 2-3 Loads/week), this will not adversely impact on the local road network (as it represents a minimal increase in overall traffic flow using this entrance) which will be more than adequate to accommodate same. Traffic flows will use existing routes and the existing site entrance(s) and access route. The site is well serviced by the existing road infrastructure and therefore any proposed increase in traffic will not have an adverse impact on the local area.

(ii) 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. While there are no processes involved that have a high requirement for fuel energy some ancillary heating will be required. Gas heating will be provided during the early stages of each batch and the demand for heat will depend on local weather conditions at the time of stocking. Gas requirements will be minimised by implementing high insulation standards.

The proposed development will have a definite requirement for a supply of water readily available from the existing water supply serving the existing site, during the construction phase and once completed there will be additional water used on the farm as a result of this proposed development.

The main resource to be consumed would be poultry feed, which is classifiable as a natural resource that is a renewable resource. The use of feed and water will increase proportionately with the increase in stock numbers on the farm.

(iii) The emission of pollutants

Clean storm water will be discharged to the local stream via the discharge points as indicated in the proposed site plan. 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 stream is effectively eliminated.

The emission of pollutants is to be effectively controlled and prevented by the regular 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 an experienced contractor. Accordingly, it is expected that there should not be any significant emissions of 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 increase in the amount of wastes/potential pollutants produced or used on the farm, that would lead to a significant adverse environmental impact.

The additional organic fertiliser/poultry manure to be produced will be utilised as a resource ingredient in the mushroom compost industry and/or as an organic fertiliser, and will be removed from the site by an experienced contractor. All soiled water to be allocated to the applicant's landholding.

(iv) The creation of nuisance

The proposed development combined with the existing activities on the farm, which will be carried out in accordance with the management and operational routine proposed, and in line with E.P.A., Department of Agriculture, Food and The Marine, Bord Bia and Monaghan Co. Co. requirements, is not expected to create any significant nuisance.

(v) The elimination of waste/by-products

The net increase in the volumes of waste/by-product materials to be generated as a result of this proposed development will not cause a significant adverse environmental impact.

The volume of organic fertiliser/manure (by-product) produced will be minimised by efficient cleaning out and the use of high pressure low volume power 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 eliminate any of the waste products does not exist.

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 development is completed is very small and is near zero. For example, some birds die prematurely in the site. At present the cleaning, hygiene, disease control and restricted access measures that are implemented on site minimise this risk, and these practices will be implemented with regard to the proposed development. Accordingly, the waste that is dead birds cannot be eliminated and cannot realistically be planned to reduce below the level achievable under current best practice.

Similarly, with regard to the hazardous waste in the form of spent fluorescent tubes. The volumes are small and already minimised. While the applicant can be forever conscious of the Reduce, Reuse and Recycle principle in relation to all waste, there is relatively little that can be done to effect significant further gains in this proposed development.

(vi) 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 account in deciding on the method of disposal to be used for slaughtered animals,

1) Preventing the spread of the disease/virus, and,
2) Mininising 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 the Marine in consultation with the National Expert Epidemiological Group. The preferred option for the disposal of carcasses from this farm site is rendering.

4(4) 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 poultry farming for a long number of years and has had no incidents with regard to the effect of this existing enterprise on the local environment. Taking into account 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.

4(5) Cumulative Effects

This Poultry farm is located in County Monaghan, a county well recognised for its intensive agriculture sector. It is anticipated that the proposed development at this site will not lead to a cumulative adverse impact on the local environment. It has been demonstrated by the applicant that the existing farming activities that are carried out on-site are done so with no significant adverse impact on the local environment and in compliance with his existing E.P.A. Licence.

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 Monaghan area when assessed individually and/or cumulatively with other such developments in this area.

4 (6) Inter-relationships

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

Part II (Second Schedule) of the Regulations requires that the interactions between human beings, flora and fauna, soil, water, air and climatic factors, landscape, material assets and cultural heritage (incl. architectural and archaeological) be assessed. The aspects of the environment likely to be significantly affected by the proposed poultry house have been considered in detail in the relevant Chapters of the EIS. In order to demonstrate the areas in which significant interactions occur a matrix has been prepared, see figure 4.1 below.

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 most column (the impactor), which contains the list of aspects of the environment likely to be significantly affected by the proposed farm these have been indicated. A distinction has been made between positive, negative and neutral impacts in this matrix.

Figure 4.1 Matrix Indicating Inter-relationships between EIA Factors

	Soil	Water	Air & Climate	Landscape & Visual	Noise	Traffic	Flora & Fauna	Human Beings	Cultural Heritage	Material Assets
Soil		N	N/a	N	N/a	N/a	N	Pos	N/a	N/a
Water	N/a		N/a	N/a	N/a	N/a	N	N/a	N/a	N/a
Air & Climate	N/a	N/a		N/a	N/a	N/a	N	N	N/a	N/a
Landscape & Visual	N/a	N/a	N/a		N/a	N/a	N/a	N/a	N/a	N/a
Noise	N/a	N/a	N/a	N/a		N/a	N/a	N/a	N/a	N/a
Traffic	N/a	N/a	N	N/a	N		N/a	N	N/a	N/a
Flora & Fauna	N/a	N/a	N/a	N	N/a	N/a		N/a	N/a	N/a
Human Beings	Pos	Pos	Pos	Pos	N/a	N	Pos		Pos	Pos
Cultural Heritage	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a		N/a
Material Assets	N/a	N/a	N/a	N/a	N/a	N/a	N/a	Pos	N/a	

Neutral	N
Positive	Pos
Negative	Neg
Not Applicable	N/a

4 (6) (i)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 soil on Human Beings –** the proposed poultry farm expansion will provide for an additional supply of poultry manure which is a valuable fertiliser used by customer farmers to offset the cost of purchasing chemical fertiliser, and as a resourse ingredient in the mushroom compost industry. The additional supply of organic manure will result in a financial gain to the recipient farmers and therefore a net positive impact of the proposed development.

- **Impacts of Human Beings on other factors** - The increase in wealth as a result of the operation of the farm would mean that there will be funds available to facilitate improvements through human endeavor in the following factors soil, water, air & climate, landscape & visual, flora & fauna and cultural heritage. Improvements in soil can be achieved through the addition of organic fertilizer, improvements in water through improved management and separation of storm and soiled waters, improvements in air through better manure management processes, improvement in flora & 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 beings will ultimately result in improvements to material assets.

4 (6) (ii) 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 Soil on Water, Landscape & Visual and Flora & Fauna –** The additional organic fertilizer will have a positive overall impact on soil adding additional nutrients. However there is potential for leaching of these nutrients to water. This threat has been mitigated as all organic manure is to be allocated to customer farmers for use in accordance with S.I. 31 of 2014 and excessive application of this organic fertilizer will not occur. There will be no increase in the grassland stocking rate on this farm.

  The positive impact on soils in the customer farmland areas will potentially see a change in landscape through the improvement in field pastures, this may be viewed as a slightly positive impact overall and any changes will be minimal through compliance with S.I. 31 of 2014, as this organic fertiliser will be used to replace chemical fertiliser. The changes in soil may result in a reduction in diversity of flora & fauna in receiving lands. However all lands proposed for receipt of organic fertilizer 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 Water on Flora & Fauna** – The organic manure generated together with any soiled water on site has the potential to negatively impact on water. A reduction in water quality in the area would have an effect on both local flora & fauna and flora & fauna in the wider river catchment area. This potential threat has been mitigated through the proposal to allocate all organic fertilizer for use in accordance with S.I. 31 of 2014. This is further mitigated through the provision of an appropriate on site storm water drainage system. These mitigating measures are sufficient to ensure that there is no negative impact on Flora & Fauna as a result of its relationship with water.

- **Impacts of Air & Climate on Flora & Fauna and Human Beings** – There is a potential threat to Flora & Fauna and Human Beings as a result of any impact on air due to the existing farm. The generation of mal-odour on site may have a slight negative impact on Flora & Fauna and in particular on human beings, however this is mitigated by the fact that the proposed development location is in excess of c. 235m from any existing third party dwelling. Adequate mitigating measures have been described in this EIS to ensure that this threat does not materialise and thereby ensuring the potential impact is neutral.

4 (7) Difficulties encountered in compiling the required information

The processes and technology involved in the construction and operation of the proposed development are standard for agricultural/poultry developments and well understood. In addition the main principles are substantially similar to that already in practice on site with the existing development. The technical information on which to base an assessment of impact on environmental parameters is readily available in the public domain.

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 planning application and Environmental Impact Statement, relate to the proposed development of 1 No. additional poultry house, plus all associated site works and ancillary structures.

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