## **ENVIRONMENTAL IMPACT STATEMENT (E.I.S.)**

### In respect of:

## I.P.P.C. Licensable Activity: An Installation for the Intensive Rearing of Poultry

at

Corgarive (or Corgarive),
Ballyhaise
Cos Cavan.

Prepared by

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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 Mr. Declan O'Gorman, Corgarive (or Corgarve), Ballyhaise, Co. Cavan in respect of an application for an IPPC Licence for a poultry facility. The E.I.S. has been prepared by Mr. Paraic Fay B.Agr.Sc, Ms. Barbara Olwill MRUP BAgrSc Dip EIA/SEA Mgnt. 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 licensable activity is a poultry farm currently operating at a capacity of c. 62,000 broiler places at Corgarive (or Corgarve), Ballyhaise, Co. Cavan. The E.I.S. has been prepared after an Environmental Impact Assessment (E.I.A.) of the licensable activity carried out by C.L.W. Environmental Planners Ltd., in accordance with the Planning and Development Acts 2000-2010, Planning & Development Regulations 2001-2012 and the Protection of Environment Act 2003. This E.I.S. was required to accord with S.I. No. 457 of 2012 European Union (Environmental Impact Assessment) (Integrated Pollution Prevention and Control) (No. 2) Regulations 2012 which requires an E.I.S. for all applications for an I.P.P.C. Licence submitted to the EPA prior to 30<sup>th</sup> September 2012 and which exceed the thresholds for E.I.A.

The existing farm operated by the applicant, i.e. the licensable activity, consists of 2 No. Broiler rearing houses with a current capacity of c. 62,000 broiler places, together with all ancillary structures and facilities necessary for the operation of this enterprise. Poultry farming has been carried out on this site since the late 1980's. Planning permission was granted by Cavan County Council for the first poultry house in 1989 (Cavan County Council Planning Reg. Ref. No. 89/17749) while permission for the second house was granted in 2000 (Cavan County Council Planning Reg. Ref. No. 00/1535). These houses have undergone some refurbishment and improvements works in more recent times ensuring that they can still provide adequate accommodation for the rearing of poultry in an efficient manner.

The capacity of the entire farm at c. 62,000 birds exceeds 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 licensable activity will be located in the town land of Corgarive (or Corgarve), Ballyhaise, directly adjacent to the applicant's farmyard complex where a dairy enterprise is carried out. The applicant is highly experienced in poultry farm management, and in particular the management of broiler rearing enterprises and has been operating this site in excess of 20 years. The operation of the licensable activity will be integrated, in so far as is possible, with the operation of the existing farming activities as has been the case so far. The management principles and production processes will continue to be operated in a similar manner striving to achieve the optimum in efficiency.

The licensable activity will ensure the continued viability of the applicant's land holding. This enterprise currently provides part-time employment for the applicant and when combined with his dairy farming enterprise means the applicant is full time employed on this farm.

The licensable site, (i.e. the site of the existing activities), drains naturally through field drains to either Corgarve Lough and on to the Annalee River or through field drains directly to the Annalee River. The site is located within the North Western River Basin District in Hydrometric Area 036 and in the River Erne Catchment area. 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. There will be no discharge of any soiled water or any effluent from the site to any watercourse or to groundwater.

The site is located in a rural agricultural area. The activity on the farm is, and will be, a poultry farming activity appropriate to the area and consistent with the development plan for County Cavan. The existing site is adjacent to a local third class road off the R212 Ballyhaise to Clones Road c.2km from the village of Ballyhaise. It is sited adjacent to the applicant's farm yard and private dwelling on a site of approximately 0.15 hectares within an overall landholding of 13.6 hectares. The site is accessed via a farm roadway that currently provides access to the farmyard and the applicant's dwelling. The licensable activity takes place/will take place within existing structures and will use the same entrance and access routes.

The site is slightly elevated in nature relative to the public road which is located to the north of the site. The existing hedgerows on the perimeter of the site help blend the existing farmyard complex into the landscape. The land topography, similar in nature to the surrounding general topography in this area is undulating in nature. This provides amble capacity for the absorption of agricultural development into the landscape. The existing buildings have been sited so as to ensure that the development is integrated, in so far as is possible with the existing structures on the farm, and to ensure that there is no adverse visual impact on the surrounding area.

The location of the licensable activity, in close proximity to the existing farmyard, and screened by the existing landscaping together with sympathetic external finishes means that the poultry houses are well integrated into the existing farmyard complex. The licensable activity and the existing poultry farm will not have any negative effect on any NHA, SAC or SPA site.

Hazardous waste generated at this site will be in the form of spent fluorescent lighting tubes. The annual quantity 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 Cavan Co. Co. civic amenity centre. Alternatively these tubes may be returned to the supplier.

While the houses were originally built some years ago, regular maintenance and upgrade works ensures that all existing systems are well maintained and serviced and so are operating to maximum efficiency.

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 remains as dry as possible.

The production process on this farm is/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' plant at Shercock, Co. Cavan for processing. The 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 the site.

The poultry manure from this farm is/will be removed off site by an authorised contractor, McCartney Contractors, 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. McCartney Contractors 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 licensable activity will be a total of 1,309 m³/annum. The applicant has made provision elsewhere within his farm/farmyard for manure storage facilities in line with the requirements of S.I. 610 of 2010. Soiled water from the existing, and licensable activity where applicable, will be collected in dedicated soiled water collection tanks, located at the end of each house. This soiled water will then be applied to the applicants' landholding in line with S.I. 610 of 2010.

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. Well maintained, properly ventilated poultry farms with modern manure removal will minimise any potential adverse odour impact and will be practically odour free 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. College Proteins are an authorised contractor who regularly remove these carcasses, and any other such material to their authorised facility at Nobber, Co. Meath.

The potential of the licensable activity, 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 licensable activity,
- wastes would be removed from the site by authorised waste contractors for either disposal or use elsewhere,
- all manure is to be removed off site by an experienced contractor, and,
- all soiled water will be collected in dedicated soiled water collection tanks pending its application to the landholding adjoining the site in accordance with S.I. 610 of 2010.

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.

#### B. SCOPING OF ENVIRONMENTAL IMPACT ASSESSMENT

The scoping exercise of this EIS was carried out in conjunction with the applicant, and was completed in line with previous submissions to the Environmental Protection Agency, Cavan 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

The scope of the Environmental Imparts Assessment conducted in respect of the proposed I.P.P.C. Licensing of this existing poultry farm 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 2010.
- Draft guidelines on the recommended information to be contained in Environmental Impact Statements published by the Environmental Protection Agency.
- The requirements of Cavan County Council, as elaborated in the current County Development Plan.
- 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 licensable activity 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 assess each of these sections of the environment with respect to the impacts that the licensable activity 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 licensable activity. 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 ESS.

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

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

	NO DEVELOPMENT	OPERATIONAL PHASE
Human Beings	≈	11
Flora	2	≈
Fauna	≈	≈
Soil	$\approx$	11
Water	~	××
Air	≈	×
Climate	n	=======================================
Ambient Noise	$\approx$	æ
Cultural Heritage	æ	~
Landscape	æ	×
Material Assets		
<ul> <li>Traffic</li> </ul>	~	×
<ul> <li>Land Use</li> </ul>	2	<b>/</b>
<ul> <li>Employment</li> </ul>	×	✓

#### Key:

2 No Impact

Slight Negative Potential Impact ×

xx Moderate Negative Potential Impact

Consent of copyright owner required for xxx Significant Negative Potential Impact

Slight Positive Potential Impact Moderate Positive Potential Impact Significant Positive Potential Impact

C.L.W. Environmental Planners Ltd. August 2013

#### 1. Introduction

This Environmental Impact Statement (EIS) was compiled following an Environmental Impact Assessment (E.I.A.) of a licensable activity on an existing poultry farm at Corgarive (or Corgarve), Ballyhaise, Co. Cavan, operated by the applicant, Mr. Declan O'Gorman. The licensable activity is a poultry facility currently operating at a capacity of c. 62,000 broiler places. The E.I.S. is to be submitted to the Environmental Protection Agency (EPA) in support of an application for an I.P.P.C. Licence (EPA Reg. Ref. P0922-01) and previously submitted on 29<sup>th</sup> October 2010. The poultry farm is currently operating as a c. 62,000 place broiler farm. Please refer to the site plan contained in Appendix No. 2.

The E.I.S. is drafted with particular regard to the Planning and Development Acts 2000 - 2010, the Planning and Development Regulations 2001 - 2010 and in particular Article 94 and Schedule 6 of the 2001 Planning and Development Regulations, and the Protection of Environment Act 2003. This E.I.S. was required to accord with S.I. No. 457 of 2012 European Union (Environmental Impact Assessment) (Integrated Pollution Prevention and Control) (No. 2) Regulations 2012 which requires an E.I.S. for all applications for an I.P.P.C. Licence submitted to the EPA prior to 30th September 2012 and 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. It is submitted to provide information that may be helpful to the EPA in making its decision on the application for an IPPC Licence for the licensable activity.

#### 1.1 Description of the licensable activity

#### · Scale of existing and licensable activities.

The existing farm consists of 2 No. pourtry/broiler rearing houses currently operating as a c. 62,000 place broiler farm together with all ancillary structures and facilities necessary for the operation of this enterprise. Poultry farming has been carried out on this site since the late 1980's. Planning permission was granted by Cavan County Council for the first poultry house in 1989 (Cavan County Council Planning Reg. Ref. No. 89/17749) while permission for the second house was granted in 2000 (Cavan County Council Planning Reg. Ref. No. 00/1535). These houses have undergone some refurbishment and improvements works in more recent times ensuring that they can still provide adequate accommodation for the rearing of poultry in an efficient manner. The poultry farm will continue to operate along similar management principles and production processes as is currently the case and will continue to comply with The Bord Bia Poultry Products Quality Assurance Scheme ensuring the highest standards in animal welfare

The licensable activity will continue to be carried out in accordance with the Nitrates directive, animal welfare legislation, and will ensure that this farm operates at maximum, efficiency, flock performance and environmental standards. This licensable activity will be located in the townland of Corgarive (or Corgarve), adjacent to the site of an existing farmyard complex.

This enterprise currently provides part-time employment for the applicant and when combined with his dairy farming enterprise means the applicant is full time employed on this farm.

The purpose of the I.P.P.C. Licence is to permit the rearing of birds from day olds to c. 5-6 weeks of age. These birds will then be transported to processors for slaughter for human consumption. The scale of the licensable activity is average by current industry standards. At present all birds from this poultry farm are processed by Carton Brothers, Shercock, Co. Cavan on behalf of Carnmoy Ltd, Moynalty, Kells, Co. Meath.

The licensable activity will be carried out in 2 no. poultry houses. Estimated wash water production is c. 80 - 90 m3/annum. Two soiled water tanks are present on site to the rear of each poultry house. These tanks are precast concrete tanks and have a capacity of c.14 m³ soiled water or 28m³ combined storage. During winter periods wash water is transferred from these tanks to existing cattle slurry tanks ensuring that adequate storage capacity exists exceeding the 26 week capacity required.

The applicant also runs a grassland farm on which soiled water and cattle slurries are applied. There is an area of c. 19 hectares available to the applicant for the receipt of wash water from this farm. All organic fertilizer will be applied in accordance with S.I. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations. With an estimated nutrient content of c. 1kg N/m3 the soiled water will generate c. 90kg N or 4.8 kg N per hectare.

Manure will be removed c. 6-7 times per annum at the end of each batch. Manure is removed off site by an approved contractor, currently McCartney Contractors. This manure is currently sent to composters to provide mushroom compost, McCartney Contractors currently supply the poultry litter from this site to Monaghan Mushrooms, Tyholland, Co. Monaghan and Carbury Compost, Derrinturn, Co. Kildare (W0124-01). Some manure may be moved to customer farms for use as an organic fertiliser. Where this is the case all records required to be maintained to comply with S.I. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations will be maintained on site and be provided to the recipient farmer.

The buildings used for the licensable activity form part of an existing farmyard complex, and are sympathetic to the surrounding landscape in terms of their design and appearance, and were designed and built with the current use in mind.

#### · Site Location.

The facility is located on a land parcel owned by the applicant, in the townland of Corgarive (or Corgarve), Ballyhaise, Co. Cavan approximately 2 km from the village of Ballyhaise. It is located on a local road off the R212 Ballyhaise to Clones Road. It is sited adjacent to the applicant's farm yard and private dwelling on a site of approximately 0.15 hectares within an overall land parcel of 13.6 hectares. National Grid Reference E246316 N310595. The site forms part of an overall landholding of c. 18.6 hectares farmed by the applicant. The applicant farms these lands and carries out normal agricultural practices thereon, including landspreading washwater from this poultry farm.

The licensable activity on the farm is, and will be, poultry farming activity appropriate to the area and consistent with the development plan for Co. Cavan. This site is accessed via the existing farmyard complex which has direct access to the public road. It is located to the rear of the applicant's dwelling. The licensable activities will be carried out within the existing structures and will use the same entrance and access routes.

The location of this farm yard is identified on the location maps included in Appendix 1. The layout of the licensable activity is shown on the Site Layout plan included in Appendix 2. The site is compact, and is designed to be safe, secure and efficient in operation. The applicant's dwelling is located adjacent to the existing/licensable activity, within 10metrs of the site boundary. There are two other dwellings located within 100 metres of the licensable activity. These neighbouring dwellings are c.60metres and c.90metres respectively from the site boundary. A copy of the site location map (1:50,000) is included as Appendix No. 1, and a copy of the site plan included as Appendix No. 2.

#### Topography

The site is slightly elevated in nature relative to the public road which is located to the north of the site. The land topography, similar in nature to the surrounding general topography in this area is undulating in nature and rises sharply to the rear of the farmyard complex. This provides amble capacity for the absorption of agricultural development into the landscape. The existing buildings have been sited so as to ensure that the development is integrated, in so far as is possible with the existing structures on the farm, and to ensure that there is no adverse visual impact on the surrounding area.

#### Description of the existing/licensable activity

As the existing houses were built with their current purpose in mind and considering that they have undergone refurbishment and continued maintenance works in recent times bringing them up to a relative modern standard they represent an efficient approach to the broiler rearing operation on this farm. All systems are well maintained and serviced so as to ensure that they are operating to maximum efficiency.

Broiler rearing design principles are relatively simple 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 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.

#### · Operation of the Existing/Licensable activity

The main activities at this facility 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 Cartons Poultry, and purchasers Carnmoy Ltd, and customers of Carnmoy Ltd. Carnmoy Ltd. 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 and Cavan Co. Co., and will be subject to inspections from the Environmental Protection Agency, upon commencement of the I.P.P.C. license.

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, Finisher and Withdrawal. 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 foods conversion efficiencies. Total Feed Consumption/annum for the licensable activity is expected to be c. 1,560t. All feed to be used on this farm will be supplied from specialised feet suppliers and mainly from Carton Brother's own 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 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, McCartney Contractors Ltd., 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. McCartney Contractors 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 licensable activity will be 1,309 m³/annum produced by the existing and previously approved enterprise. The applicant has made provision elsewhere within his farm/farmyard for manure storage facilities in line with the requirements of S.I. 610 of 2010.

Records of movement of manure/organic fertiliser on the site will be in compliance with S.I. 610 of 2010, i.e. the regulations that have given effect to the Nitrates Directive in Ireland.

Soiled water from the existing licensable activity is normally generated at the end of each production cycle where houses are thoroughly washed out. Soiled water will be collected in dedicated soiled water collection tanks, located at the end of each house. Two soiled water tanks are present on site to the rear of each poultry house. These tanks have a capacity of in excess of c. 14 m³ soiled water each. During winter periods wash water is transferred from these tanks to existing cattle slurry tanks ensuring that adequate storage capacity exists exceeding the 26 week capacity required.

The applicant also runs a grassland farm on which soiled water and cattle slurries are applied. There is an area of c. 18.6 hectares available to the applicant for the receipt of wash water from this farm. All organic fertilizer will be applied in accordance with S.I. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations. With an estimated nutrient content of c. 1kg N/m3 the soiled water will generate c. 90kg N or 4.8 kg N per hectare. Application of soiled water to lands will be in accordance with S.I. 610 of 2010, European Communities (Good Agricultural Practice for Protection of Waters) Regulations.

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 virtuses 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 town using a power washing system and then disinfected.

## 1.2 Mitigating measures 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 a storm water drainage system to properly collect and discharge to field drainage all clean rainwater from roofs and clean surfaces.
- (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 adjoining farmlands.
- (vi) Appropriate collection and removal from the site of waste materials generated on the site. Record and maintain required records of all consignments of waste despatched from the site in accordance with the requirements of an I.P.P.C. Licence. See Appendix No. 6.
- (vii) The collection and the removal from the site of all dead animals and all animal tissues. Collection is currently undertaken by College Proteins, an authorised waste collector, who transports the carcasses for disposal or recovery at their authorised facility.

Correspondence from College Proteins. with regard to the disposal of animal tissue waste is included hereafter, in Appendix No. 4. 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.

- (viii) Comprehensive cleaning and hygiene routine to minimise any potential odour from the site.
- (ix) Specially formulated diets to maximise performance and reduce nutrient excretion. See Appendix No. 5.
- (x) 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) consumption.

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

- 1.3 Data required to identify and assess the main effects that the licensable activity is likely to have on the environment
  - Knowledge of the environment in which the licensable activity, (and the existing farm) is sited.
  - Knowledge of the processes in the licensable activity, 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.

#### 1.4 Alternatives studied by the developer and reasons for choice, taking into account the effects on the environment.

#### Alternative site

The licensable activity has to-date being facilitated within existing poultry houses which were purpose built for this activity. These houses are situated adjacent to the existing farm yard complex. The licensable activity for which an I.P.P.C. Licence is being sought takes place/will take place in already constructed facilities and is/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. Accordingly, development on an alternative site is deemed impracticable and/or less suitable and therefore no other site was considered.

#### Alternative Cease Current Activity

The only reasonable alternative to continuing with the licensable activity at this site is to cease broiler production entirely. This will see the existing poultry houses vacated with all poultry litter removed by contractor as normal, soiled water tanks and meal bins would be emptied and decommissioned. As these houses were purposely built for poultry production they are not readily transferable to other uses on the farm. The likely outcome is that they would fall derelict over time and would eventually be dismantled and the site cleared. This would ultimately generate significant volumes of C & D waste to be disposed of as well as having an impact on the landscape over a short to medium term. The broiler chickens produced on this site would be required to be reared on an alternative site and would require the construction of new facilities to meet the existing demand for these chickens. This represents a poor use of an existing resource which, while aging, is still providing for efficient poultry production through continued maintenance and upkeep.

The existing site layout was designed so as to ensure optimum access on site for all traffic associated with the existing licensable activities, and to ensure that the site is contained, safe and efficient in operation. The layout of the poultry houses, adjacent to the existing farmyard, reduced potential adverse visual impact through the clustering of farm buildings. Existing landscaping will be maintained and strengthened where necessary along the boundary to further screen the existing farm and licensable activity from view.

The design of the existing housing complies with BAT requirements. The exterior finish, is agricultural in character, and is sympathetic to the local environment. All roofing materials are dark in colour.

No other alternative sites, layouts and/or designs were deemed satisfactory and/or feasible, as the existing poultry unit:

- 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 preservation of
  existing hedges and trees and use of natural/dark coloured materials in any remedial
  works carried out on site.

#### 2. Further information

## 2.1.1 Description of the physical characteristics of the licensable activity and the land use requirements during operation.

The physical characteristics of the licensable activity will comprise;-

- · An entrance through an existing access at the public road.
- Existing hedgerow plantations along the public road provide screening and assist in the absorption of the existing buildings into the drumlin landscape.
- The buildings are of a form, design, colour and materials that are sympathetic to their surroundings. The existing buildings are of a timber portal frame construction on a concrete base, with tongue and groove timber panel walls on a block and plaster stub wall.
- Underground, concrete soiled water storage tanks are provided for each house in which soiled water is collected and stored pending application to the applicants farmland.

With the exception of the existing entrance from the public road, all of the structures on the site are screened or blended in to the surrounding landscape by the external finish of the buildings and the nature of the existing larger farmyard complex. Any additional landscaping to be introduced on the site will in accordance with the Dept. of Agriculture, Food and the Marine, Spec. S135. The applicant is a participant of the Rural Environmental Protection Scheme (REPS) and has added additional hedgerous and tree stands surrounding the farmyard as part of his plan under this scheme.

## 2.1.2 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 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.
- 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 continue upon
  receipt of the I.P.P.C. Licence. As part of this approval the daily procedure will follow the Bord
  Bia Poultry Products Assurance Standard 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 a private well(s) located elsewhere on the farm. Estimated water use will be c. 3,300 m<sup>3</sup> per annum for the licensable activity. Water will continue to be supplied from this existing well on the farm.

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. 5. Total feed consumption/annum is expected to be c. 1,560t.

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 insulated to ensure that this is used as efficiently as possible.

## 2.1.3 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 licensable activity

The expected residues and emissions that will result from the operation of the existing development are referred to below.

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. Supplementary heating is to be provided by gas burners. The amount of gas used will vary depending on outside climatic conditions.

General wastes such as packaging, paper, disposable clothing etc. will be collected regularly by a local contractor and/or 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 water proof container on site for collection by College Proteins at 1 - 2 week intervals for transport to their authorised facility operated at Nobber, Co. Meath. 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 4.

The poultry manure from this farm is/will be removed off site by an experienced contractor, McCartney Contractors 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 as a result of the licensable activity is and will be c. 1,309m³/annum. The applicant has made provision elsewhere within his farm/farmyard for manure storage facilities in line with the requirements of S.I. 610 of 2010.

Soiled water from the existing and licensable activity will be collected in the two dedicated soiled water collection tanks, located at the end of each house. This soiled water will then be applied to the applicant's landholding located off site as required by S.I. 610 of 2010, i.e. the Nitrates Directive.

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

Noise generated in the existing development in the site will not exceed legal limits at the site boundary. See Appendix 11. Lighting of the site will be the normal for farmyard sites and will not exert influence or interference outside the site boundary. There would not be any source of significant vibration on the site. There will not be any significant dissipation of heat from the 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 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 as per conditions to attached to an I.P.P.C. Licence should this be granted by the EPA. All such material is to be consigned for disposal, recovery and/or recycling in appropriately authorised installations, to be agreed with the EPA, as may be required by conditions included in the Licence.

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 licensable activity.

#### 2.2 Description of the aspects of the environment likely to be significantly affected by the licensable activity.

It is envisaged that no aspects of the environment will be significantly affected by this licensable activity. The potential affects on the environment may be subdivided into affects on people, flora and fauna, soil, water, air, the landscape and material assets including architectural and archaeological heritage. The licensable activity will not have any further negative visual impact and will not require any further development on-site. The closest recorded archaeological monument to the site is a Ringfort – Rath in Corgarve (Record Number CV 021-012), located in excess of 220 metres from the boundary of the site. This assessment concluded that there is no known potential for any adverse impacts in relation to architectural or cultural heritage as a result of granting a licence for this poultry farm.

#### Effect on people

Significant effects on people are not anticipated. The only dwellings within 100 metres of the site are the applicant's own dwelling located directly adjacent to the site and two neighbouring dwellings located c. 60m and c. 90metres respectively from the site boundary. There has been no record of complaints made by the occupants of these houses in relation to any activities within the site. It is anticipated that they will not be adversely affected by, or experience significant impairment of amenity due to the licensable activity.

The licensable activity is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience on this and other similar sites indicates that the legal limits for such emissions, 55db daytime and 45db night-time are highly unlikely to be exceeded beyond the site boundary. There are no processes, existing or 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 licensable activity are not located close to and/or likely to adversely impact on any High Landscape Areas, Scenic Viewing Points or Scenic Routes and/or Amenity Areas/Parks as detailed in the Cavan County Development Plan 2008 - 2014. Please refer to Appendix No. 7 in this regard. Based on experience at similar sites elsewhere in the country significant effects are not anticipated. If there are significant affects, people will object and their objections will have to be investigated and have to be corrected if found to be real and justified. This existing development, which have been operating for a long number of years, has not received any complaints of this nature to date.

#### · Effect on flora and fauna

The site of the licensable activity 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. It is not near to or likely to adversely impact on any areas of primary or secondary amenity value or views from scenic routes. No significant hedgerow, will have to be removed to facilitate the activity and there is no special flora or fauna associated with this site. There are no new structures or new paved surfaces as a result of this activity. The continued operation of this activity will affect such a small area that any impact will be close to zero or neutral with the local area and will be more than mitigated by the existing and/or proposed measures to be implemented on the site.

The site is not in or close to any NHA, SAC or SPA. It is surrounded by farmland comprising improved grassland which is of little ecological value. It is considered that the operation of this development, has not and will not, adversely impact in any way on the flora or fauna in the surrounding area. Appendix no. 12 contains a Screening Report carried out on the licensable activity. This concluded that there is no requirement for a Stage II Habitats Directive Assessment to be carried out as the proposal will not impact on Natura 2000 sites.

The existing rodent control programme will be maintained. 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 control programme covers the inclusion of the licensable activity on the bait point map and the 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 existing development, managed as is proposed, which will have to operate under I.P.P.C. License regulations, will have no measurable impact on either flora or fauna outside the site boundary. The area of the licensable site is an intensively managed agricultural area with poor biological diversity, maintaining the existing native landscaping around the site boundary, should improve biological diversity on the site.

#### · Effect on Soil

No new structures are proposed for the site and the existing/proposed activities will take place 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 licensable activity. 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. Organic fertiliser is destined for compost production and/or may be supplied to customer farmers for use as organic fertiliser in accordance with S.I. 610 of 2010.

See Appendix No. 8 for general soil classification for this area. The subsoils in this area are described as till derived chiefly from lower Palaeozoic rocks. The soil type in the vicinity of the licensable activity is made up of manily Sandstone and shale till.

#### Effect on Water

Adverse effect on ground water from the licensable activity should be nil, as there will be no discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. The licensable activity, 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 licensable activity, will operate on a dry manure basis, whereby the manure will be removed from the houses at the end of each batch and be transported off site directly to compost yards or recipient farmers. The only soiled water from the licensable activity will arise due to washing down of the poultry houses. There is one well located on the farm, outside the licensable site area, and this will serve as the water supply to the licensable activity.

According to the Geological Survey of Ireland the aquifer classification appropriate to the site and the surrounding area is a Poor Aquifer (PI), Bedrock which is generally unproductive except for Local Zones, with a vulnerability rating of high vulnerability. As the licensable activity, will operate on a dry manure basis, whereby the manure will be removed from the houses after each batch and transported off site by a licensed contractor, and given the low vulnerability of ground water resources in the area, there is minimal risk to ground water supplies in the area of the site.

Adverse effect on <u>surface water</u> from the licensable activity should be nil, as there will be no 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, to the adjacent watercourse which ultimately flows to the Annalee River and onwards to Lough Oughter and Associated Loughs. The site of the existing and licensable activity is located in the North Western River Basin District in Hydrometric Area 036 and in the River Erne Catchment area. There will be no discharge of soiled water or effluent from the licensable activity to surface water and so the licensable activity will not have any significant impact on surface waters. See Appendix No. 9 for surface water quality data for this area.

#### · Effect on Air

The potential effects of the licensable activity on air are limited to the odour emissions that may be associated with the operation of the licensable activity, loading of poultry manure and its removal by contractor. The licensable activity has been operating for a long number of years with no complaints relating to odour. It can be assumed that odorous emissions from the 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.

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

- Proper storage of all wastes on site, and regular removal of same. Twice daily flock inspections to remove any fatalities form 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. Manure should be transferred
  from sheds to trailers as quickly as possible to minimise potential odour emissions.
  Transport of manure off site to take place in properly designed and covered trailers.
- Proper stocking rate within the house, and appropriate management of litter under birds.
- Proper management of temperature and humidity controls within the houses.

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. 10 for met data for this area.

#### · Effect on archaeological 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 licensable activity. 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 is a site located to the south of the subject site in excess of 220 metres from the site boundary which is listed on the Sites and Monuments Record. This is described as a Ringfort – Rath SMR No. CV021-012. The description in the Archaeological Survey of Ireland is as follows:

"Raised circular area enclosed by low earthen bank. Outside of this in the SE half of the site is a modern field drain which has presumably replaced the original fosse. From SW-N-E bank has been scarped and incorporated into the field boundary. Narrow break in bank at SE may represent original entrance."

Please refer to Appendix No. 13 for additional information with regard to the location of the site, as listed in the Archaeological Survey of Ireland. As the site is located a considerable distance from the licensable activity the current proposal will not impact on this recorded site in any way. No excavation activities will take place within 200 metres of this site.

#### 2.3 Description of likely significant effects of the licensable activity arising from:-

#### (i) The existence of the licensable activity

The licensable activity is of average scale by current industry standards but it would and does add to the economic activity or the farm, with consequent "trickle down" positive effect in the region and the local community, particularly with regard to raw material suppliers, and the installers of equipment required for housing, water, feed and ventilation systems.

Its impact on the landscape will be minimal as no new structures are to be built on site and the existing/proposed activity is integrated into the existing buildings and on-site structures.

The long term impact on traffic on the local road as a result of the licensable activity will not have a significant adverse impact. As the activities are already taking place there will be no additional increase in volume of traffic on the local road network. Traffic for the licensable activity would be similar to that previously required for the existing development which caused no significant adverse impact. Existing traffic levels to be maintained for the licensed activity are estimated as follows:

- feed deliveries (approximately 1.2/week),
- manure transport (approximately 3-4 loads / batch), and,
- Bird deliveries/collections (approximately c. 1.5 per week (c.1 delivery/8 collections per batch)

All other traffic such as waste collection, delivery of shavings, veterinary inspections, maintenance etc., will be maintained as per existing visits to the farm. Traffic to and from the site will be minimised by optimising load sizes.

#### (ii) The use of natural resources

There are no significant negative effects expected as a result of the licensable activity 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.

The licensable activity has, and will have, a definite requirement for a supply of water readily available from the existing water supply serving the existing site.

The main resource to be consumed would be poultry feed, which is classifiable as a natural resource that is a renewable resource.

#### (iii) The emission of pollutants

Clean storm water will be discharged to the local stream via the discharge points as designated. 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 climinated.

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 licensable activity, 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 poultry manure to be produced as a result of the licensable activity 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 licensable activity combined with the management routine proposed and required is not expected to create any significant nuisance.

#### (v) The elimination of waste/by-products

There will be no net increase in the volumes of waste/by-product materials to be generated as a result continued operation of this licensable activity, and thus there will be no significant adverse environmental impact.

The volume of 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 organic fertiliser have been identified previously, thus ensuring that there is no adverse environmental impact from same.

The opportunity to reduce the volume of waste materials below, that which are generated under Good Farming Practice and which will be generated on this farm as part of the licensable activity is very small and close to 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 licensable activity. 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 licensable activity.

#### (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.

#### 2.4 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 licensable activity.

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 licensable activity will comply with the Nitrates directive, the applicant is fully confident that the licensable activity will continue to have no significant adverse effect on the local environment.

#### 2.5 Cumulative Effects

This poultry farm is located in County Cavan, a county well recognised for its intensive agriculture sector. It is anticipated that the continued operation of the licensable activity at this site will not lead to a cumulative 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 adverse impact on the local environment. As the discussible activity will provide additional benefits due to improved management regime in relation to environmental protection, and due to the fact that all manure is to be moved off site of the anticipated that the licensing of this activity would not adversely impact on the local environment within the Cavan area when assessed individually and/or cumulatively with other such developments in this area.

C.L.W. Environmental Planners Ltd.

August 2013

#### 2.6 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 licensing of this poultry unit 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 8.1 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 licensing of this existing farm these have been indicated. A distinction has been made between positive, negative and neutral impacts in this matrix.

Figure 2.1 Matrix Indicating Inter-relationships between EIA Factors

	Soil	Water	Air & Climate	Landscape & Parity	Noise	Traffic	Flora & Fauna	Human Beings	Cultural Heritage
Soil		Con	N/a	-N-	N/a	N/a	N	Pos	N/a
Water	N/a		N/a	N/a	N/a	N/a	N	N/a	N/a
Air & Climate	N/a	N/a		N/a	N/a	N/a	N	N	N/a
Landscape & Visual	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
Traffic	N/a	N/a	N	N/a	N		N/a	N	N/a
Flora & Fauna	N/a	N/a	N/a	N	N/a	N/a		N/a	N/a
Human Beings	Pos	Pos	Pos	Pos	N/a	N	Pos		Pos
Cultural Heritage	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	

Neutral	N
Positive	Pos
Negative	Neg
Not Applicable	N/a

#### 2.6 (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 licensing of this existing poultry unit
  will provide for a continuation in the supply of poultry manure which is a valuable
  fertiliser used by customer farmers to offset the cost of purchasing chemical fertiliser.
  The overall increase in supply of organic manure will result in a financial gain to the
  recipient farmers and therefore a net positive impact of the licensable activity.
- Impacts of Human Beings on other factors The increase in wealth as a result of the proposed project would mean that there will be funds available to facilitate improvements through human endeavor in 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.

#### 2.6 (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 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 used in the production of mushroom compost and/or allocated to customer farmers for use in accordance with S.I. 610 of 2010 and excessive application of this organic fertilizer will not occur. The positive impact on soils 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. 610 of 2010. The changes in soil may result in a reduction in diversity of flora & fauna in receiving spreadlands. 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 compost production and/or in accordance with S.I. 610 of 2010. This is further mitigated through the provision of 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 licensable activity is to occur on an existing farm. 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.

August 2013

#### 2.7 Difficulties encountered in compiling the required information

The processes and technology involved in the operation of the licensable activity 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 licensable activity. As stated previously, this application for an I.P.P.C. Licence and Environmental Impact Statement, relate to the licensable activity operating within 2 no. poultry houses with a capacity of c. 62,000 broiler places. No additional structures are to be constructed as part of this licence process and the licensable activity will take place within the existing facilities.

The operation of the existing farm / licensable activity will be carried out in accordance with the requirements of Cavan Co. Co., The E.P.A., The Department of Agriculture, Food and Marine and will strive to achieve maximum efficiency, flock performance and environmental standards.

Signed:

Paraic Vay BAgrSe

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#### **Appendices**

Appendix No. 1 ~ Site Location Map

Appendix No. 2 ~ Site Layout

Appendix No. 3 ~ Department of Agriculture, Food and The Marine Record 3 Form

Appendix No. 4 ~ Animal Tissue Disposation

Appendix No. 5 ~ Feed Details

Appendix No. 6 ~ General/Mixed Waste Disposal

Appendix No. 7 ~ Extracts from Co. Cavan

Development Plan 2008 - 2014

Appendix No. 8 ~ Extract from General Soil Map of Ireland.

Appendix No. 9 ~ Local Water Quality Data

Appendix No. 10 ~ Met Data

Appendix No. 11 ~ Details relating to a number of noise surveys carried out on intensive farms in the Cavan region.

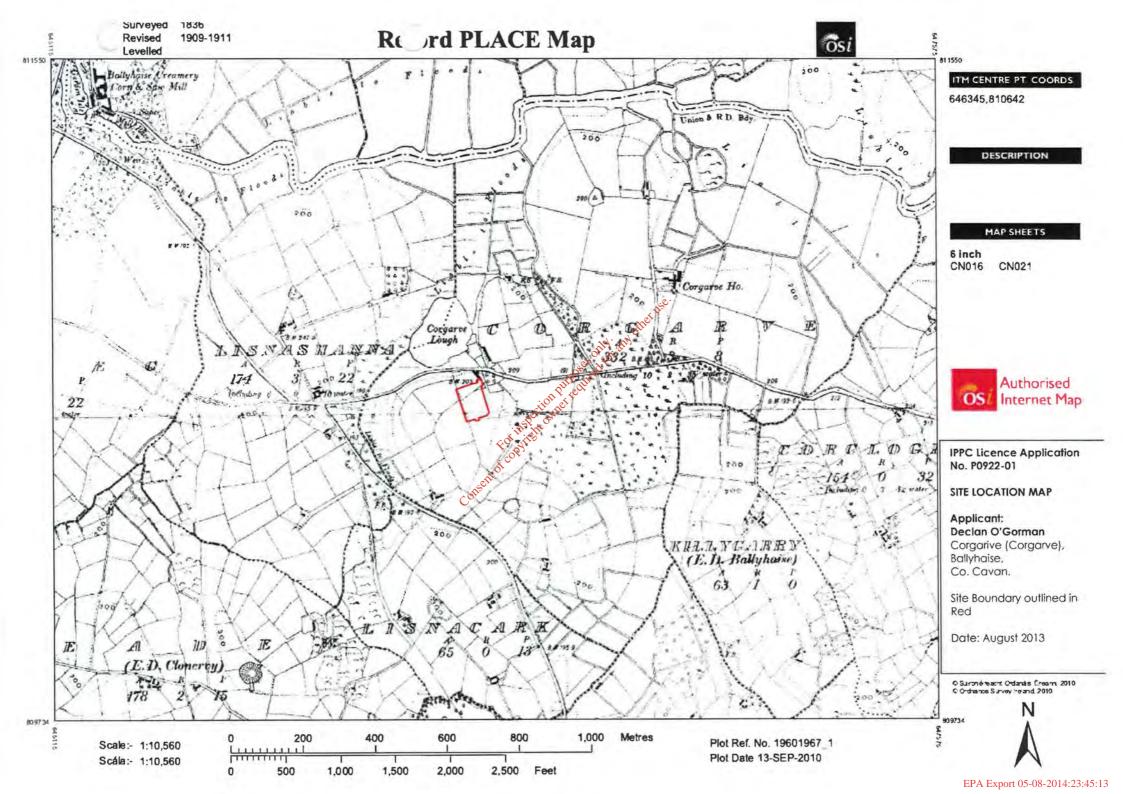
Appendix No. 12 ~ Screening Report for Appropriate
Assessment

Appendix No. 13 ~ Record Details – Archaeological Survey of Ireland

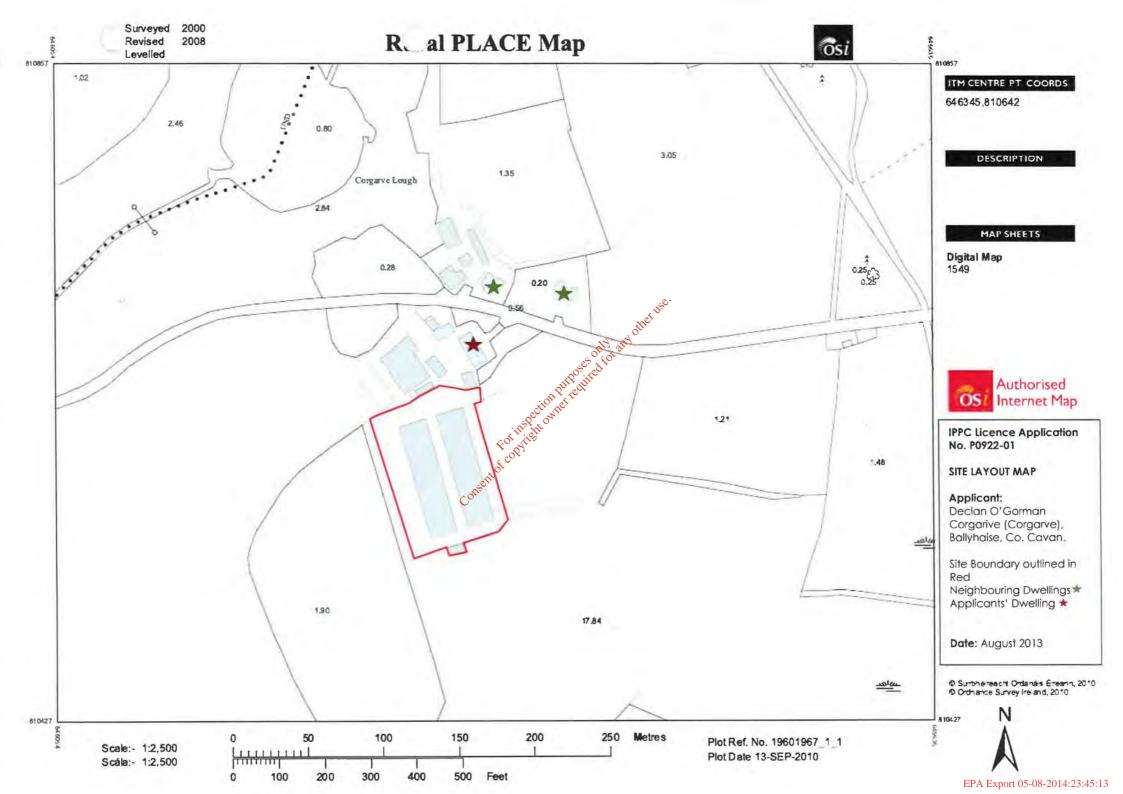
Appendix No. 14 ~ European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2010 - \$1,610 of 2010

C.L.W. ENVIRONMENTAL PLANNERS LTD.

# Appendix No. 1 Site Location Map



# Appendix No. 2 Site Layout



## Appendix No. 3

## Department of Agriculture, Food and The Marine Record 3 Form

## RECORD 3

## RECORD OF MOVEMENT OF ORGANIC FERTILISERS 1

Movement forms must be submitted before the end of each year i.e. details of exports which occur in 2013 must be submitted on this form by 31.12.13

IMPORTER(S) PLEASE NOTE: All importer details must be supplied. Importer breach of the 170kg limit N/pha may be liable to penalty. If the importer does not have a herd number, the area and LPIS number OR a map with adjacent LPIS number of the area question will be required.

Date of movement	Type of fertiliser from Tables 7 and 8 of the Regulations (e.g. cattle or pig slurry)	ferti	content of iliser les 7 or 8)	Quantity moved (m³, litres, kg, specify units used)	Total N kg	Total P kg	Confirmation that details of movement are correct  Name, Signature & Herd No are required for the Exporter and Importer  This form cannot be processed unless all details are supplied.			
		N kg/m³	P kg/m³				EXPORTER	IMPORTER(S) (List if more than one importer)		
					tion purposet	only any other ed for any other	Name: Herd No: Signature:	Name: Herd No: Signature:		
				Consent of corbiti	eco with		Name: Herd No: Signature:	Name: Herd No: Signature:		
							Name: Herd No: Signature:	Name: Herd No: Signature:		
otal N and P	in organic fertilisers me	oved (kgs)								

<sup>&</sup>lt;sup>1</sup> A copy of this record must be maintained by both the exporter and importer. The "exporter" is the farmer sending organic fertiliser out of his/her holding. The "importer" is the farmer taking it in.

PLEASE COMPLETE AND RETURN FORM TO: Nitrates Section, Department of Agriculture, Food & the Marine, Johnstown Castle Estate, Wexford.

PLEASE NOTE: The only acceptable proof of postage will be a Swift Post Receipt or a Registered Post Receipt.

# Appendix No. 4 Animal Tissue Disposal



# **College Proteins**

College Road, Nobber, Co. Meath, Ireland. Tel: + 353(0)46 909 6000 Fax: + 353 (0)46 905 2062 / 905 2465 Website: www.collegeproteins.ie Email: cpl@collegeproteins.ie

Declan O'Gorman Carnmoy LTD, Corgarive, Ballyhaise, Co.Cavan

22nd August 2013

## To Whom It May Concern:

only any other use. We wish to confirm that we collect and dispose poultry from the above named individual on a regular basis. The poultry are contained in 240 litre or 660 litre wheelie bins. Our plant at Nobber, which was custom built on a green field site in 1989 is fully equipped with a modern effluent system, which is regularly monitored by the E.P.A. under IPC licence no. P0037-03. We pride curselves on having a good reputation in the Rendering Industry, and we have been certified under EU Directive 1069/2009, which governs the industry.

If you require any further assistance, please do not hesitate to contact me.

Yours faithfully,

Transport Manager



# Appendix No. 5

# **Feed Details**

Carton Bros. Limited, (Milling Division) Shiman, Sherenck, Co. Casan, Ireland

Tel: 042-9669241 Fits: 042-9669575

28th January 2013



## TO WHOM IT MAY CONCERN.

Carton Bros. Ltd. own and operate their own Feed Mill at Shinan, Shercock, Co. Cavan. This gives them complete control over feed formulations and feed quality. As part of an on-going policy of producing the most cost-effective poultry rations consistent with meeting the nutritional requirements for optimum production, Carton Bros. Ltd have adopted the latest technologies for reducing excretion of excess nutrients.

Carton Bros. Ltd were the first Feed Mill in Ireland to use the enzyme "Phytase" across their full range of feeds since March 1999. This has reduced Phosphate excretion by up to 30%. The use of other enzymes to improve the digestibility of feed has allowed smaller quantities to be fed, thus reducing litter output. Carton Bros. Ltd have always formulated to the lowest crude protein content possible thereby minimising the excretion of Nitrate in the litter.

Carton Bros. Ltd are constantly evaluating any new technologies which become available to minimise poultry manure and nutrient excretion and are available to discuss this matter at any time.

Yours Sincerely,

Tom Horan

Agriculture Manager



Obrectors: Ilms, B Carion Justin T. Carion Vincent A T. Carion Reg. Office: Besser Drive, Cloudalida Industrial Estate, Ouldin 22 Reg. No. 7313.

VIT No. 11: 83:48-1678



# Appendix No. 6 General/Mixed Waste Disposal



## WASTE COLLECTION PERMIT

Waste Management (Collection Permit) Regulations, 2007
Waste Management (Collection Permit) (Amendment) Regulations 2008

## Permit Register Reference Number: WCP/MH/11/0006-01

Meath County Council being a nominated authority under Section 34(1)(aa) of the Waste Management Acts 1996 to 2011, having carried out a review of Waste Collection Permit Reference No. MH2005/89C has [by Manager's Order Ref. No. 214/2011 dated 28.06.2011] granted a waste collection permit to:

# EXOMEX Ireland Ltd Trading as McElvaney's Waste and Recycling

Herein after called the permit holder

Of ses of for

## Corcaghan, Monaghan, Co. Monaghan

This permit is effective from 28.06.2011 and valid until 27.06.2016 after which the permit shall expire.

This Waste Collection Permit and attached conditions supersedes the previous Waste

The permit holder may appeal the decision of Meath County Council to grant this waste collection permit, in accordance with Section 34(9)(a) of the Waste Management Acts 1996 to 2011, to the judge of the North East District Court, being the District Court in which the principal offices of Meath County Council is situate, within one month of the date of this permit.

Meath County Council may at any time review, and subsequently amend the conditions under Section 34 (6) of the Waste Management Acts 1996 to 2011 and the local authority will give notice in writing of such intention to the permit holder. Otherwise an application for a review of this permit shall be made at least 60 working days prior to the expiry date of this permit to the Meath County Council, Environment Section, County Hall, Railway Street, Navan, Co. Meath. This permit may be revoked under Article 29 of the Waste Management (Collection Permit) Regulations, 2007 and the Waste Management (Collection Permit) (Amendment) Regulations, 2008.

The permit holder, subject to the attached schedule of conditions is authorised by this permit to only collect the waste type(s) specified in Appendix A within the local authority areas specified in Appendix D, and to transfer waste to the facilities outlined in Appendix B, using vehicle(s) specified in Appendix C.

TOTHOLO	of speaked in Appendix of
Signed	
	Director of Services for Meath County Council
Date:	

## Appendix No. 7

# Extracts from Co. Cavan Development Plan 2008 - 2014

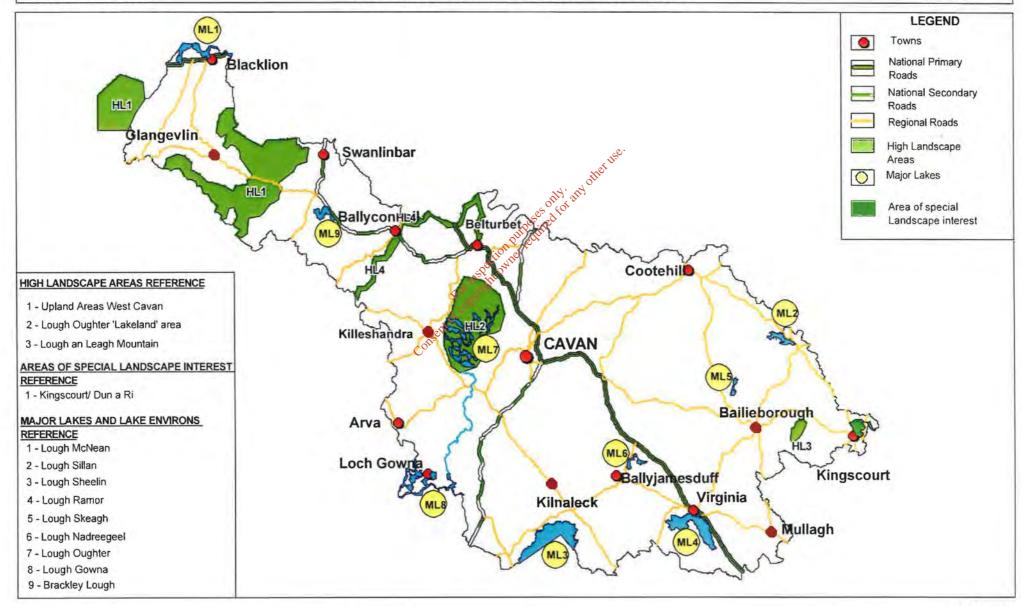


## **COUNTY DEVELOPMENT PLAN 2008 - 2014**

## **COUNTY CAVAN**

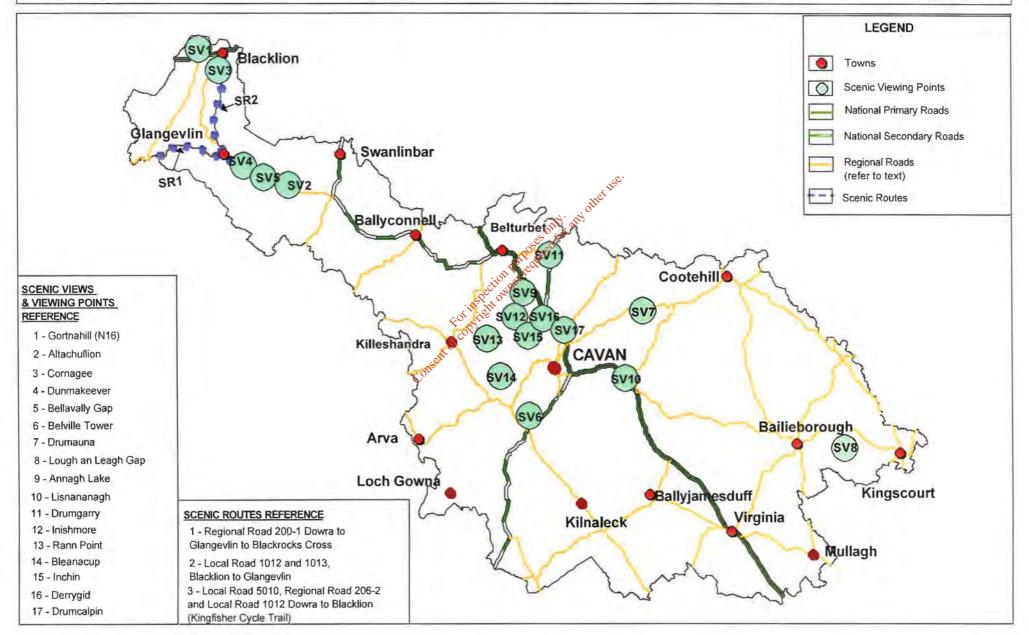
## HIGH LANDSCAPE AREAS AND MAJOR LAKES

MAP 7



## **COUNTY CAVAN**

## SCENIC VIEWING POINTS AND SCENIC ROUTES



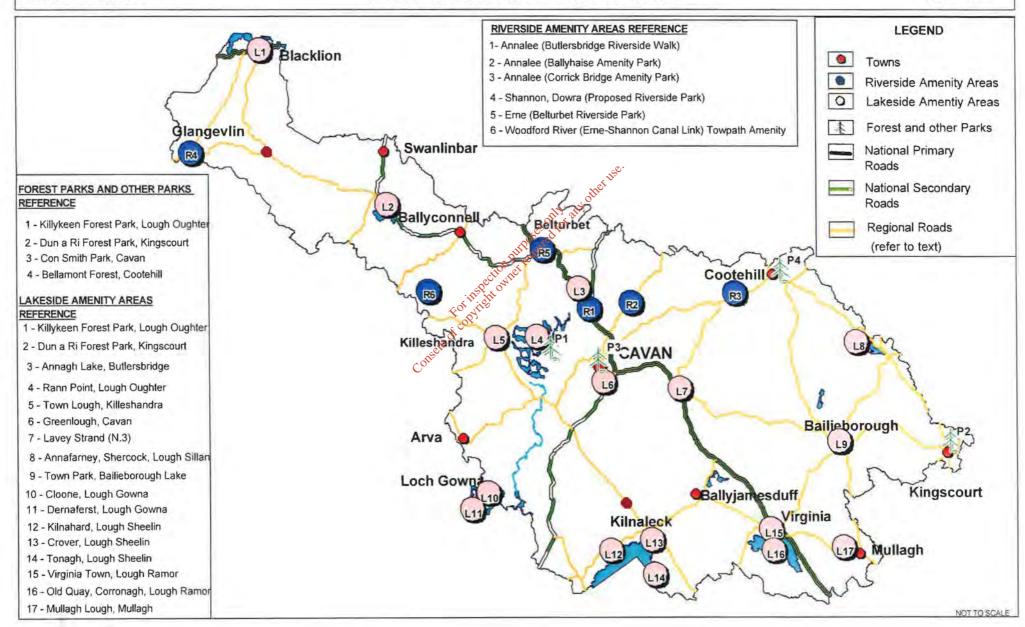


## **COUNTY DEVELOPMENT PLAN 2008 - 2014**

## **COUNTY CAVAN**

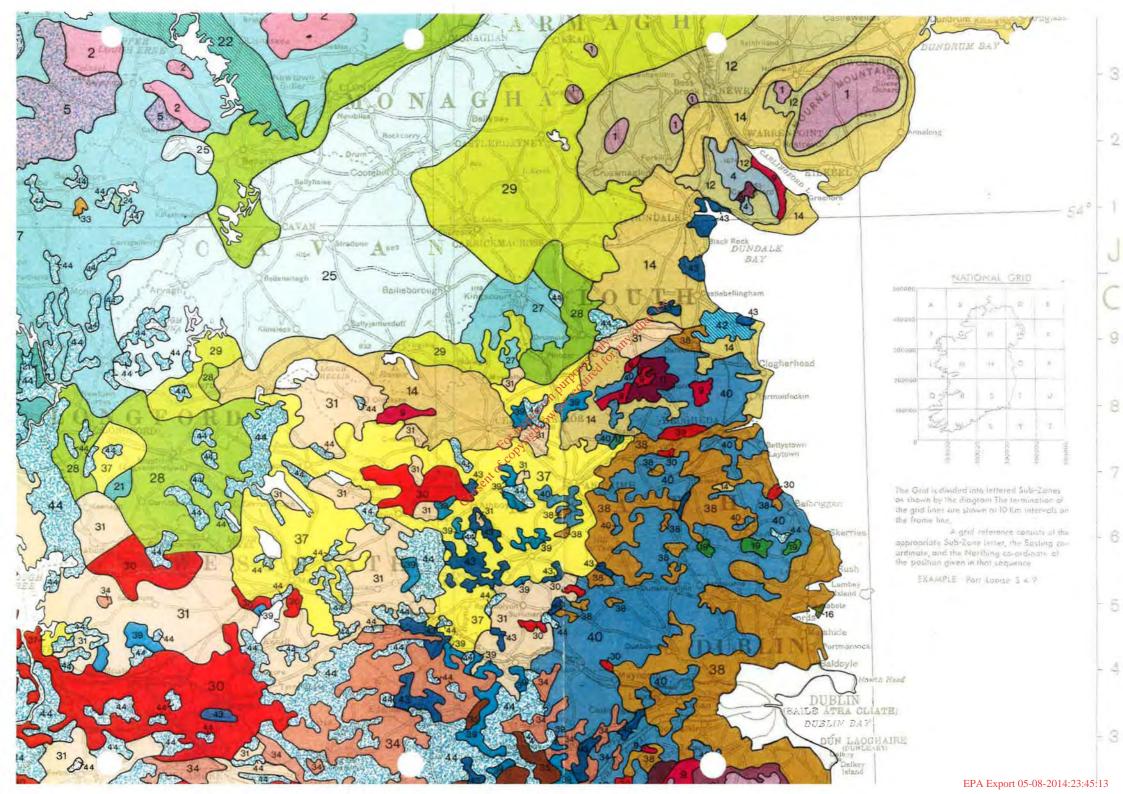
## RIVER/LAKESIDE AMENITIES AND PARKS

MAP 10



# Appendix No. 8

# Extract from General Soil Map of Ireland.



6

ils	Parent Material	Per cent of total area
	Mostly, granite or rhyolite glacial till	1:13 2:50
(15)	Mixed sandstone, limestone glacial till	1·69 1·40
1)	Ordovician – Silurian – Cambrian shale glacial till	4·22 4·32
20)	Sandstone, Lower Avonian shale glacial till	6·31 5·23
(3),	Morainic sands and gravels and blown sands	·42 ·35
	Basalt glacial till	·02 1·35
0)	Sandstone, granite, mica schist glacial till	-74 -61
	Upper Carboniferous shale and sandstone glacial till	·77
20).	Mica schist glacial till	1·41 2·46
	Sandstone glacial till	2·95 2·78
5)	Upper Carboniferous shale glacial till	4·86 4·27
at	Granite and sandstone and shallow glacial till ( quartzite in places )	1·31 1·08
		5·14 4·40

Broad Physiographic		Soil Association	on	Parent Material	Per cent of
Divisions	Nos.	Principal Soil	Associated Soils	Falent Material	total area
Devembe	25	Gleys (50%)*	Acid Brown Earths (40%) Interdrumlin Peat and Peaty Gleys (10 %)	Mostly Ordovician - Silurian shale sandstone glacial till	2·57 3·66
Drumlin (Wet Mineral and Organic Soils)	28	Gleys (60)*	Acid Brown Earths (40)	Basalt glacial till	1.86
Suis	27	Gleys (85)*	Interdrumlin Peat and Peaty Gleys (15)	Mostly Upper Carboniferous limestone and shale – sandstone glacial till	3·77 4·73
Drumlin	28	Grey Brown Podzolics (60)	Gleys (20), Interdrumlin Peat and Peaty Gleys(20)	Mostly limestone glacial till	3·43 3·23
Drier Mineral and Organic Soils )	29	Acid Brown Earths (75)	Interdrumlin Peat and Peaty Gleys (25)	Mostly Ordovician - Silurian shale - glacial till	1·16 2·73
	30.	Grey Brown Podzolics (70)	Brown Earths (20) Gleys (5) Basin Peat (5)	Limestone morainic gravels and sands	2·64 2·18
Flat to Undulating Lowland	31	Minimal Grey Brown Podzolics	Gleys(10) Brown Earths (5) Basin Peat (5)	Limestone glacial till	4:47 3:70
	32	Degraded Grey Brown Podzolics (58)	Peat (15) Brown Earths(15 Gleys (10), Podzols (10)	Mostly limestone glacial till	3·08 2·56
	33	Shallow Brown Earths and Bendsinas (60)	Grey Brown Podzolics(25) Gleys (10 ) Peat (5)	Limestone till, shallow in places	3·21 2·66
	3450	Minimal Grey Brown Podzolics (70)	Gleys (20) Brown Earths (10)	Limestone glacial till	6·02 4·98
(Mainly dry Mineral Soils)	(2°00)	Grey Brown Podzolics (80)	Gleys (10), Brown Earths (10)	Stony limestone glacial till	·64 ·53
Collised		Grey Brown Podzolics (80)	Gleys (20)	Limestone gravelly till	·70 ·58
	37	Grey Brown Podzolics (75)	Gleys (20), Brown Earths (5)	Limestone and shale glacial till	1·42 1·18
	38	Grey Brown Podzolics (75)	Gleys (25)	Till of Irish Sea origin with limestone and shale	1.14 .95
	20	Gleys** (90)	Grey Brown Podzolics (10)	Limestone glacial till	3·27 2·86
<b>T</b>	40	Gleys* (80)	Grey Brown Podzolics (20)	Till of Irish Sea origin with limestone and shale	2·07 1·56
Flat to Undulating Lowland	0	Gleys* (75)	Acid Brown Earths (15) Peaty Gleys (10)	Basalt glacial till	-22
(Mainly wet Mineral and Organic Soils)	47	Gleys* (90)	Grey Brown Podzolics	Glacial muds of Irish Sea origin	·49 ·61
	41	Gleys (60)	Brown Earths (20) Peaty Gleys (20)	Alluvium	1·34 1·15
	44.2	Basin Peat			5 Export 05-0

# Appendix No. 9 Local Water Quality Data

River: Annalee Catchment: Erne WFD Status

Station Location	Station Number	Water Body Code	Current Ecological Status RWB	Target Ecological Status RWB	Target Date
2nd br. u/s L.Sillan	0080	NW_36_1947	Moderate	Good	2021
2nd br. d/s L. Sillan	0150	NW_36_1181	Poor	Good	2021
1st br. d/s L. Tacker	0250	NW_36_1072	Good	Good	2009
Br. Nr Anns fort	0350	NW_36_1102	Moderate	Good	2021
New Grove Br.	0500	NW_36_1102	Moderate	Good	2021
Br SE of Fort William	0600	NW_36_1102	Moderate	Good	2021
Br.NW of Rakenny Ho	0800	NW_36_2417	Poor	Good	2021
Ballynallon Br	0900	NW 36 2417	Poor	Good	2021
Ballyhaise Br.	1000	NW 36 2417	Poor	Good	2021
Br. Nr Curraghanoe	1150	NW 36 2417	Poor VS	Good	2021
0.2Km u/s Cavan R confl	1350	NW_36_2417	Poor	Good	2021
0.2km d/s Cavan R confl	1400	NW_36_241 Ted	Poor	Good	2021

Sampling Stations and Biological Quality Ratings

Station Number	Station Location	Q'89	Q'93	Q'97	Q'98	Q'01	Q'04	Q'07	Q.10
0080	2nd br. u/s L.Sillan	115 <b>3-4</b>	3-4	3-4	4-5	3-4	4	3-4	4
0150	2nd br. d/s L. Sillan	133	3-4	3	3	3	3	3	3
0250	1st br. d/s L. Tacker	3-4	3-4	4	3-4	3-4	3-4	74	-
0350	Br. Nr Anns fort	4	4	4	3-4	4	4	4	4
0500	New Grove Br.	4-5	4-5	4-5	3	4	4	4	4
0600	Br SE of Fort William	2-3	4	4-5	3-4	3-4	4	3-4	3-4
0800	Br.NW of Rakenny Ho	3-4	4-5	4-5	4	4-5	4	4	4
0900	Ballynallon Br	4	4	4	4	3-4	4	3-4	4
1000	Ballyhaise Br.	3-4	4	4	4	3-4	3-4	3-4	3-4
1150	Br. Nr Curraghanoe	3-4	4-5	4-5	4	3-4	4-5	115	4
1350	0.2Km u/s Cavan R confl	4-5	4	3-4	4	3-4	3-4	12	3-4
1400	0.2km d/s Cavan R confl	3-4	4	3-4	3-4	3	3-4	3-4	3-4

## MRP results

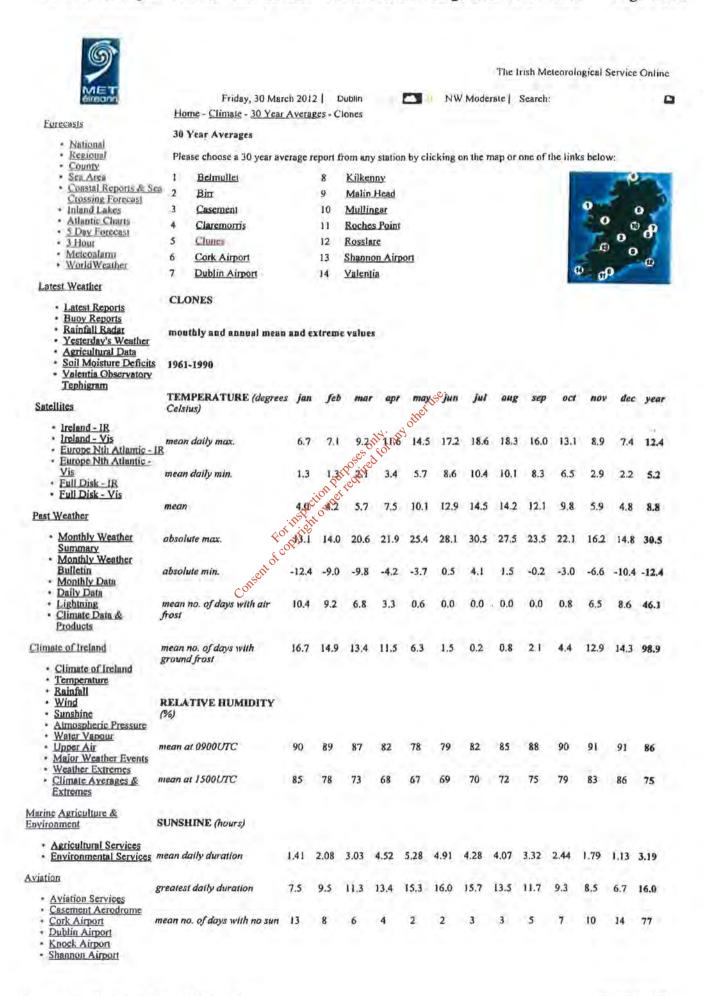
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2014
Station	Med												
Station	(μg P/I)	(μg P/l)	(µg P/l)	(μg P/I)	(µg P/I)	(μg P/l)	(μg P/I)	(μg P/l)	(μg P/l)	(µg P/l)	(µg P/l)	(µg P/l)	(μg P/I)
0080	NM*	NM	24	17	17	17	19	15	20	30	16	12	16
0150	60	50	47	30	36	34	61	62	61	63	24	40	45
0250	NM	NM	41	24	24	30	25	60	43	~	₩.	-	19-
0350	NM	NM	35	21	24	35	33	23	44	30	24	30	21
0500	38	31	36	27	28	38	24	35	41	49	31	28	30
0600	NM	NM	32	30	23	35	34	35	49	50	56	33	33
0800										47	53	57	36
0900	52	42	40	40	24	42	41	35	44	45	56	54	38
1000	NM	NM	39	41	36	41	38	31	50	46	53	52	39
1150	NM	NM	39	41	35	40	36	34	33		- +		1.0
1350	41	40	41	41	35	40	38	38	47	41	36	51	39
1400	NM	NM	55	47	43	45	40	37	53	29	40	67	44

<sup>\*</sup>Not Measured

Assessment
This river ranges from poor through to good ecological status. The majority of

Some improvement in median orthography of the status. The majority of the status of this river. river.

# Appendix No. 10 Met Data



Forecasting Division	nvision v														
General Forecasting     Ground Based Data	RAINFALL (mm)														
<ul> <li>Space Based Data</li> <li>Sea Based Data</li> </ul>	mean monthly total	90.8	67.4	77.5	55.9	67	68	603	85.8	82.7	97.3	85,3	90.3	928.3	
IT Operations     CAPO Operations     Forecasters	greatest duily total	27.1	27.1	33.5	24.9	26.9	30,4	37.5	45.6	27.6	76.8	34.8	35,1	76.8	
Media	mean no. of days with >=	21	16	19	16	17	17	17	19	18	20	19	20	218	
About Us	0.2mm	21	10	12	10	2.7	11	1.0		1.0	20	1.5	20	210	
Mission Statement															
<ul> <li>Our History</li> <li>Met Éireann Structure</li> <li>Weather Observing</li> </ul>	mean no. of days with >= 1.0mm	16	12	14	.12	13	12	12	14	14	15	14	15	364	
Stations - Valentia Observatory - Weatherdial	mean no. of days with >= 5.0mm	7	5	6	4	5	5	4	6	6	6	6	7	66	
Publications     Conversions     Site Map     Links	WIND (latots)														
• FAQ	Control of Control														
· Vacancies															
- Contact Us	mean monthly speed	9.8	9,6	10.1	8.5	8.0	7.2	6.9	6.9	7.5	8.5	8.5	9.4	8.4	
News mobile met le Educatio Privacy Statement Print this Webpage Gaeilge	n max, gust	83	81	73	63	60	57	53	55	87	68	71	75	87	
	max. mean 10-minute speed	54	51	45	40	35	36	32	37	50	40	42	47	54	
	mean no. of days with gales	1,2	8.0	0.9	0.2	0,2 je	°0,1	0.0	0.0	0.2	0.3	0.3	0.5	4.8	
	mean no. of days with gales  WEATHER (mean no. of days with)  snow or sleet  snow lying at 0900UTC  foot hail  thunder  Consent of		.05	ses only	iot any										
	snow or sleet	7.1	of Pilit	4.9	2.0	0.4	0.0	0.0	0.0	0.0	0.1	2.0	4,2	26.9	
	snow lying at 0900UTC	THE POLICE	2.5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	10.8	
	hail	1.2	1.9	3.9	3.0	1.7	0.4	0.1	0.1	0.3	0.7	1.2	1.0	15.5	
	thunder Consent	0.1	0,1	0.1	0.3	1.1	1.6	0.9	0.8	0.4	0.1	0.0	0.1	5.7	
	fog	5.1	4.4	2.7	2,9	2.0	2.0	2.3	4.7	5.2	5.1	5.7	4.7	46.8	

MET ÉIREANN, Glasnovin Hill, Dublin 9, Iroland Tot: +353-1-8064200 Fax: +353-1-8064247

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Ten Designant Designmen In 19700

## Appendix No. 11

Details relating to a number of noise surveys carried out on intensive farms in the Cavan region

-ylon

## Measurement Parameters

## Leg Values

 $L_{eq}$  (t) values represent the continuous equivalent sound level over a specified time (t). This value expresses the average levels over time and is a linear integral.

## Max. P Values

The Max. P value represents the maximum sound pressure level produced by a source during the monitoring period.

## L<sub>90</sub> and L<sub>10</sub> Values

The L<sub>50</sub> and L<sub>10</sub> values represent the sound levels exceeded for a percentage of the instrument measuring time. L<sub>10</sub> indicates that for 10% of the monitoring period, the sound levels were greater than the quoted value. L<sub>10</sub> is a good statistical parameter for expressing event noise such as passing traffic. The L<sub>90</sub> represents post event sound levels and is a good indicator of background noise levels.

## **EQUIPMENT USED**

Cirrus 703A Type One Sound Level Meter Serial No. 024818
Calibration Certificate Number 103602
Microphone Type: MK224 Serial No. 970065
Tripod

Calibrator CR 513A Serial No. 024602
Calibration Certificate Number 101432

## On Site Calibration.

The instrument was calibrated immediately before and after the measurement periods with no drift in calibration level noted.

REST	JLTS OF MEA	SUREMENTS -	FARM 1 (Day-t	ime)		
Location No.	Leg dB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LondB(A)		
N1	65.3	105.6	48.8	39.4		
N2	47.1	66.2	43.2	34.9		
N3	38.4	57.8	40.0	33.2		
N4	46.7	73.3	48.6	43.6		
N5	54.6	78.3	42.4	34.0		

RESU	LTS OF MEA	SUREMENTS - F	ARM 1 (Night-	time)		
Location No.	LeqdB(A)	Max.P.dB(A)	$L_{10}dB(A)$	L <sub>90</sub> dB(A)		
N1	33.2	45.9	34.2	30.6		
N2	37.0	47.2	37.0	36.2		
N3	35.1	54.2	36.8	31.6		
N4	40.2	51.4	43.6	35.0		
N5	31.3	45.2	31.3	30.6		

Other use

Location No.	LeqdB(A)	Max P.dB(A)	$L_{10}dB(A)$	LoodB(A)		
N1	44.2	53.6	45.1	41.7		
N2	44.6	ect with 60.8	45.4	41.7		
N3	52.1	64.3	56.0	42.3		
N4	47.5	63.8	48.2	42.8		
N5	73.8	89.0	77.1	42.7		

RESU	LTS OF MEA	SUREMENTS - F	ARM 2 (Night-	time)		
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LoodB(A)		
N1	37.3	58.9	38.2	32.6		
N2	41.7	53.8	43.3	37.8		
N3	43.0	66.2	45.4	39.2		
N4	40.6	69.5	43.8	35.5		
N5	42.7	61.9	47.2	35.4		

RESU	JLTS OF MEA	SUREMENTS -	FARM 3 (Day-t	ime)
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	L <sub>90</sub> dB(A)
N1	50.4	70.3	43.3	30.6
N2	40.2	75.9	42.0	37.2
N3	37.2	66.2	36.0	31.2
N4	34.9	70.2	36.6	30.6
N5	56.1	72.5	58.1	30.7

RESU	LTS OF MEA	SUREMENTS - F	ARM 3 (Night-	time)
Location No.	LegdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	L <sub>90</sub> dB(A)
N1	39.8	60.1	39.8	31.0
N2	34.8	44.8	39.0	30.8
N3	33.5	47.2	36.8	31.8
N4	34.0	48.1	37.3	32.0
N5	36.2	54.9	38.0	34.2

a purposes only any other use.

EMENTS -

RESU	JLTS OF MEA	SUREMENTS -	FARM 4 (Day-I	ime)
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LoodB(A)
N1	43.7	63.8	42.8	34.7
N2	49.5	66.0	52.8	37.4
N3	59.8°	88.7	62.8	47.8
N4	50.5	63.3	53.2	43.7
N5	54.3	94.4	53.0	40.0

RES	ULTS OF ME	ASUREMENTS -	FARM 4 (Nig	ht-time)
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LoodB(A)
N1	32.3	72.6	35.2	30.8
N2	33.7	52.2	35.5	30.6
N3	36.2	53.0	37.9	31.2
N4	30.5	67.5	34.0	30.7
N5	33.5	50.7	35.5	31.0

RESU	JLTS OF MEA	SUREMENTS -	FARM 3 (Day-t	ime)
Location No.	LegdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	L <sub>90</sub> dB(A)
N1	50.4	70.3	43.3	30.6
N2	40.2	75.9	42.0	37.2
N3	37.2	66.2	36.0	31.2
N4	34.9	70.2	36.6	30.6
N5	56.1	72.5	58.1	30.7

RESU	LIS OF MEA	SUREMENTS - F	AKM 3 (Night-	nme)
Location No.	$L_{eq}dB(A)$	Max.P.dB(A)	L <sub>10</sub> dB(A)	L <sub>90</sub> dB(A)
N1	39.8	60.1	39.8	31.0
N2	34.8	44.8	39.0	30.8
N3	33.5	47.2	36.8	31.8
N4	34.0	48.1	37.3	32.0
N5	36.2	54.9	38.0	34.2

out of the last other use.

REST	JLTS OF MEA	SUREMENTS -	FARM 4 (Day-1	ime)
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LoodB(A)
N1	43.7	63.8	42.8	34.7
N2	49.5	66.0	52.8	37.4
N3	59.8 en	88.7	62.8	47.8
N4	50.5	63.3	53.2	43.7
N5	54.3	94.4	53.0	40.0

RES	ULTS OF ME	ASUREMENTS -	FARM 4 (Nig	ht-time)
Location No.	LeadB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	LoodB(A)
N1	32.3	72.6	35.2	30.8
N2 .	33.7	52.2	35.5	30.6
N3	36.2	53.0	37.9	31.2
N4	30.5	67.5	34.0	30.7
N5	33.5	50.7	35.5	31.0

Bord na Móna, Environmental Consultancy Services

RESU	JLTS OF MEA	SUREMENTS -	FARM 5 (Day-t	ime)
Location No.	LeqdB(A)	Max.P.dB(A)	L <sub>10</sub> dB(A)	L <sub>90</sub> dB(A)
N1	61.9	84.8	54.0	40.8
N2	55.7	87.8	58.4	41.6
N3	40.6	64.7	40.0	36.1
N4	43.8	73.4	47.4	36.2
N5	47.6	69.7	48.0	42.5

RESU	LTS OF MEA	SUREMENTS - F	ARM 5 (Night-	-time)
Location No.	LeqdB(A)	Max.P.dB(A)	L10dB(A)	LoodB(A)
N1	35.7	54.8	36.8	31.8
N2	32.3	43.5	33.3	30.6
N3	36.6	54.3	36.7	33.6
N4	34.5	59.0	36.4	31.4
N5	36.3	62.6	37.8	34.4

## DISCUSSION

CLW Environmental Planners Ltd. are consultants to the five pig rearing units being examined.

As part of the application process, environmental noise resulting from activities associated with the piggeries must be measured at nominated perimeter points and also at the nearest noise sensitive location. Measurements should be made during both day-time and night-time activities at the site.

Environmental noise resulting from activities at the site should not exceed 55.0dB(A) Leq during the day-time (08.00 to 22.00hrs) and 45.0dB(A)Leq during night-time (22.00 to 08.00hrs).

The Leq value for location N1 (Farm 1 – day-time) was above the upper noise limit. However, this position is located adjacent to the piggery entrance and coincided with some movement of slurry tankers in to and out of the unit. This was also the reason for the relatively high Max. P value. When the L90 term, which effectively filters out the effects of the short term tractor noise, is considered as the indicator, then the noise level is considerably below the limit value.

Location N5 (Farm 2 - day-time) was above the limit but noise levels here were entirely associated with traffic on the adjacent national road.

At Farm 3, the Leq value at location N5 was marginally above the limit. However, passing traffic was a considerable noise source.

Location N3 at Farm 4, when measured during day-time, was affected by intermittent hedge-cutting on the adjoining road.

Location N1 at Farm 5 is also situated along a road and traffic from it was a source of noise.

All measurements made during night-time were below the 45dB(A) limit value.

Based on the results, as recorded during the monitoring events, it is not considered that noise levels resulting from activities at any of these piggeries will have any significant impact on the local environment.

# Appendix No. 12

# Screening Report for Appropriate Assessment

## **SCREENING REPORT**

## ARTICLE 6(3) & (4) OF THE HABITATS DIRECTIVE 92/43/EEC APPROPRIATE ASSESSMENT OF A PROPOSED PROJECT

### IPPC LICENCE APPLICATION FOR POULTRY ENTERPRISE

## 1.0 INTRODUCTION

The Purpose of this Report is to undertake an Appropriate Assessment Screening in relation to an application for an I.P.P.C. Licence submitted to the Environmental Protection Agency on a site at Corgarive (or Corgarve), Ballyhaise, Co. Cavan (National Grid Reference: E 246316 N 310595).

EPA Licence Application No. P0922-01

CLW Environmental Planners Ltd. have been retained by Mr. Declan O'Gorman to undertake an Appropriate Assessment Screening Report for potential significant environmental effects on Natura 2000 sites with reference to an application for an IPPC Licence for an existing poultry facility at Corgarive, Ballyhaise, Co. Cavan. The poultry facility is currently operating at a capacity of c. 62,000 broiler places. This Appropriate Assessment Screening Report should be read in conjunction with the IPPC Licence application submitted to the Environmental Protection Agency and has been prepared in response to a request for additional information received from the EPA on 10<sup>th</sup> April 2012. A subsequent request dated 9<sup>th</sup> January 2013 required the submission of an Environmental Impact Statement and this Screening for Appropriate Assessment has been carried out in tandem with this EIA.

This Screening Report has been prepared in accordance with Guidance Notes provided by the Department of Environment, Heritage and Local Government Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities.

The purpose of this *Screening Report* is to ascertain whether or not an Appropriate Assessment under *Article 6(3)* and 6(4) of the *Habitats Directive* is necessary by examining:

- whether a plan or project can be excluded from AA requirements on the basis that it is directly linked with or necessary to the management of the site, and
- the potential effects of a project or plan either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives and considering whether these effects will be significant.

As point one does not apply in this case this Screening Report focuses on the effect this project might have on any Natura 2000 sites.

## 1.1 Summary of Conclusions of Appropriate Assessment Screening

This Appropriate Assessment Screening Report of this I.P.P.C. Licence application to the EPA for an existing poultry farm at Corgarive, Ballyhaise, Co. Cavan has concluded the following:

- The Appropriate Assessment Screening Report has identified no direct potential significant adverse effects on Natura 2000 sites.
- This Appropriate Assessment Screening Report has identified potential secondary indirect adverse effects on the Natura 2000 Sites as a result of the organic fertiliser generated by the proposal. The Natura 2000 sites identified are the Lough Oughter and Associated Loughs SAC (NPWS Site Code 000007) in the Republic and the Upper Lough Erne SAC (Site Code UK 0016614) and SPA (Site Code UK 9020071) in Northern Ireland.
- However as all organic fertiliser generated at this site is to be used in compost production and/or allocated for use in accordance with S.I. 610 of 2010 European Communities Good Agricultural Practice for Protection of Waters) Regulations thereby ensuring no potential pollution of surface or ground water it is concluded that there will be no impact on the sites downstream, namely the Upper Lough Erne SPA and SAC and the Lough Oughter and Associated Loughs.
- This Report concludes that given the distance of the subject site from the identified Natura 2000 sites and the fact that the poultry farm has been in production for a long number of years without any impact it is considered that the licensing of this site will only improve the environmental controls already in place on this site. All organic fertiliser will continue to be used in compost production and/or allocated for use in accordance with the requirements of the Nitrates Directive and S.I. 610 of 2010 ensuring no potential for pollution of surface or ground water.
- It is our recommendation that there is no requirement for a Stage II
   Habitats Directive Assessment to be carried out in respect of an I.P.P.C.
   Licence application to the EPA for a poultry farm at Corgarive, Ballyhaise,
   Co. Cavan.

## 2.0 DESCRIPTION OF LICENSABLE ACTIVITY

## 2.1 Site Description

The subject facility is situated in the townland of Corgarive (or Corgarve), Ballyhaise, Co. Cavan approximately 2 km from the village of Ballyhaise. It is located on a local road off the R212 Ballyhaise to Clones Road. It is sited adjacent to the Applicants farm yard and private dwelling on a site of approximately 0.15 hectares within an overall land parcel of 13.6 hectares. An approved development of a poultry farm is currently in operation on the site. The poultry farm is operating as a circa 62,000 place broiler farm. It comprises 2 no. poultry houses and poultry production has been carried out on the site since the late 1980's.

Butlers Bridge OB allyhaise

Sites Bridge OB allyhaise

Sites Bridge OB allyhaise

Sites Bridge OB allyhaise

Following

CAVAN

Figure 2.1 Site Location



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## 2.2 Project Description

The activity on the site is the rearing of poultry in a licensable installation/facility. The facility is located in a rural area. The installation comprises animal houses, ancillary structures and equipment necessary for the accommodation, management and husbandry of the animals, and the administration of the enterprise. The structures and equipment on the site were designed and installed for the purpose of rearing poultry for sale off the site. This poultry farm is currently operating as a c. 62,000 place broiler farm.

While production on the site is continuous, the presence of operative staff and deliveries/collections are normally between 06.00 and 20.00 hours. Ventilation and feeding operations are continuous on site.

The principal inputs are feed which is supplied by the processor (e.g. cereals, soya protein), water, veterinary medicines and a modest amount of energy (electricity and gas) for heating. Water for stock and for washing is acquired from a private well adjacent to the site. Animal houses are well insulated to minimise use of heating fuel. The outputs are chickens (primary product) and animal manure (secondary product).

Some animals die of natural causes before maturity. Dead animal carcasses are placed in a closed skip on the farm before being transported to a rendering plant, currently College Proteins Ltd, by a contractor. There is a programme in place for the control of vermin and pests in the sites there is no significant pollution caused by the activity. It is policy to minimise waste accumulation and to recycle as much as possible.

Storm water from roofs and paved yards is not permitted to flow over soiled areas and is discharged via land drainage to the adjoining watercourses. There is no process effluent discharge from the site. Normal respiration gasses and odours emit from the houses and from manure, particularly during movement of the manure. Odours emitted from the site will not interfere with amenities outside the site boundary.

The structures and equipment on the site are in good serviceable condition and will be maintained that way. The practices and technology used in the site for the rearing of stock and for the control of emissions from the installation are the best available that the enterprise can afford.

Poultry manure is a rich source of plant nutrients and is a valuable fertiliser for farmland. In certain situations the organic manure from this site may be utilised as a fertiliser source in accordance with the regulations set out in S.I. No 610 of 2010 for the purposes of efficient grass/crop production. All of the required information to be maintained as outlined in S.I. 610 of 2010 will be kept by the IPPC license applicant. The license applicant/his contractor will also provide all required details to the farmer receiving the organic fertiliser.

At present and for the immediate future all organic manure from this site will be removed by contractor for distribution to either mushroom composting yards or customer farmers for use as a valuable fertiliser for crop production. All relevant records will be maintained in relation to the removal of this manure and a Record 3 form will be submitted to the Department of Agriculture, Food and the Marine at the end of each calendar year.

### 3.0 NATURA 2000 SITES IDENTIFIED

The Natura 2000 network is made up of European Sites which include

- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Candidate Special Areas of Conservation (cSAC)
- Proposed Special Protection Areas (pSPA)

The relevant Natura 2000 site identified as potentially impacted by the existing poultry facility on this site at Corgarive is the Lough Oughter and Associated Loughs SAC (NPWS Site Code 000007), located c.2.4 km northwest of the site. Other Natura sites within the vicinity is the Kilroosky Lough Cluster, Special Area of Conservation (NPWS Site Code 001786) which is located c.16.7km from the site.

As the subject site is located in close proximity to the border with Northern Ireland, designated Natura 2000 sites in Northern Ireland were also examined. The Upper Lough Erne SAC (Site Code UK 0016614) and SPA (Site Code UK 9020071) is located approximately 11km from the site. The Maghervelly Marl Loughs SAC (Site Code UK 0016621) is located in excess of 17km from the site.

Given the proximity of the sites and their location within the water catchment of the poultry facility the sites considered within the zone of potential impact from this poultry farm are the Lough Oughter and Associated Loughs SAC and the Upper Lough Erne SAC and SPA.

## 3.1 Identified Sites – Site Synopsis

### 3.1.1 The Lough Oughter and Associated Loughs SAC

The Lough Oughter and Associated Loughs runs south of the border from the Upper Lough Erne SAC. The Site Synopsis for the Lough Oughter and Associated Loughs SAC is as follows:

Lough Oughter and its associated Loughs occupy much of the lowland drumlin belt in north and central Cavan between Upper Lough Erne, Killeshandra and Cavan town. The site is a maze of waterways, islands, small lakes and peninsulas including some 90 inter-drumlin lakes and 14 basins in the course of the Erne River. The area lies on Silurian and Ordovician strata with Carboniferous limestone immediately surrounding.

This site is a candidate Special Area of Conservation for natural eutrophic lakes and bog woodland, two habitats listed on Annex I of the E.U. Habitats Directive and for the otter, a species listed on Annex II of the same Directive. The site also contains areas of dry woodland, marsh, reedbed and wet pasture.

Drainage within the area is inefficient and the water levels prone to natural fluctuation as a result. The regularly flooded areas still accommodate a variety of specialist plant species such as Amphibious Bistort (Polygonum amphibium) and Marsh Foxtail(Alopecurus geniculatus), as well as rarer species such as Needle Spike-Rush (Eleocharis acicularis) and Lesser Marshwort (Apium inundatum).

The lakes and basins are shallow, and the water well mixed and nutrient rich (eutrophic). The aquatic flora is varied with several pondweed species such as Bluntleaved Pondweed (Potamogeton obtusifolius), Shining Pondweed (Potamogeton lucens), Broad-leaved Pondweed (Potamogeton natans), Reddish Pondweed (Potamogeton alpinus) and Various-leaved Pondweed (Potamogeton gramineus).

Typical in the zone of aquatic plants are Yellow Water-lily (Nuphar lutea), Canadian Pondweed (Elodea canadensis), Mare's Tail (Hippuris vulgaris), Water Milfoil (Myriophyllum spicatum), Brooklime (Veronica beccabunga), Water Dropwort (Oenanthe spp.) and Starwort (Callitriche sp.). The aquatic community includes species of limited distribution in Ireland such as the Duckweed species Lemna gibba and Spirodela polyrhiza.

Around much of the shoreline there are well developed swamp and marsh communities, typically with a zone of Bulrush (Schoenoplectus lacustris) in front of a zone of Common Reed (Phragmites australis) which is in turn backed by a more species of zone of sedges, grasses and herbs, particularly Bottle Sedge (Carex rostrata), Common Sedge (Carex nigra), Creeping Bent (Agrostis stolonifera), Meadowsweet (Filipendula ulmaria), Marsh Helleborine (Epipactis palustris), Water Plantain (Alisma plantagoaquatica), Rough Horsetail (Equisetum hyemale), Water Horsetail (Equisetum fluviatile) and Wild Angelica (Angelica sylvestris). Less widespread species also occur on the wet lake margins; species such as Water Dock (Rumex hydrolapathum), Greater Water-parsnip (Sium latifolium), Cowbane (Cicuta virosa), Tufted Sedge (Carex elata), Water Soldier (Stratioites aloides), Arrowhead (Sagittaria sagittifolia), Flowering Rush (Butomus umbellatus) and Greater Spearwort (Ranunculus lingua) may be locally prominent.

There are many variations on this typical zonation of sheltered shores with species such as Reedmace (Typha spp.), Branched Bur-Reed (Sparganium erectum) and Reed Canary-grass (Phalaris arundinacea) gaining local prominence. More exposed shores lack the extensive swamp zones, here smaller species such as Common Spike Rush (Eleocharis palustris) can be found.

Level, wet pastures tend to be dominated by Creeping Bent (Agrostis stolonifera) and Rush species (Juncus sp.) with a scattering of marshland

and wet grassland plants such as Marsh Marigold (Caltha palustris), Water Forget-me-not (Myosotis scorpiodes) and Yellow Iris (Iris pseudacorus). Soft Rush (Juncus effusus) is most abundant with frequent Hard Rush (Juncus inflexus) and Sharp-Flowered Rush (Juncus acutiflorus) and less widespread Conglomerate Rush (Juncus conglomeratus) also occurring.

Where a general lack of grazing pressure or a particular slope has allowed it, deciduous woodland has re-established itself behind the reedbeds. Two species of Willow (Salix caprea and Salix cinerea) are common constituents along with Alder (Alnus glutinosa), Downy Birch (Betula pubescens), Hazel (Corylus avellana) and Hawthorn (Crataegus monogyna). Along submerged margins Alder and Willow are most commonly found with a flooded understorey typically containing Reed Canarygrass, Meadow Sweet, Yellow Flag and in places Tufted Sedge (Carex elata) and Greater Tussock Sedge (Carex paniculata). Downy Birch occurs along lake edges and also forms stands of wet woodland on cutover bog with varying degrees of wet and dry peat. Purple Moor-grass (Molinia caerulea), Marsh Cinquefoil (Potentilla palustris) and Bog Moss (Sphagnum sp.) occur in areas with pools and dry areas. Where there is dry peat, Bracken (Pteridium aquilinum), Bramble (Rubus fruticosus agg.) and Gorse (Ulex sp.) occur under the Birch conopy. Birch dominated wood is also found in association with Ling Heather (Calluna vulgaris) bog.

In areas of wet bog with good Sphagnum cover, bog woodland has developed. Downy Birch characterises this habitat; other typical species include Purple Moor-grass (Molinia caerulea) and Bottle Sedge (Carex rostrata).

Dry broad-leaved woodland is characterised by Ash (Fraxinus excelsior), Hazel, Holly (Ilex aquifolium) and Oak (Quercus spp.), while shrubs include Blackthorn (Prunus spinosa), Spindle (Euonymus europaeus) and Guelder Rose (Viburnum opulus). TheRed Data Book species Bird Cherry (Prunus padus) has also been recorded from the site. The clayey soils have a characteristic flora, including Wood Avens (Geum urbanum), Wood Sorrel (Oxalis acetosella), Primrose (Primula vulgaris), Herb Robert (Geranium robertianum) and Wood Sedge (Carex sylvatica).

The site supports a substantial population of water birds including internationally important numbers of Whooper Swan (average peak 231) and nationally important numbers of Tufted Duck (average peak 247) and Cormorant (average peak 130) as well as important numbers of species such as Greenland White-fronted Goose, Great Crested Grebe, Wigeon, Teal and Pochard. Lapwing, Snipe and Golden Plover also utilise the wet grassland areas. Wildfowl Sanctuaries exist at Inchin Lough, Derrygid Lough, Farnham Lough, Derrybrick Lough, Derrinishbeg Lough and

Annagh Lough.Part of the site is designated an SPA under the EU Birds Directive.

Otter, a species listed on Annex II of the E.U. Habitats Directive occurs at the site. Irish Hare has also been recorded. Both of these species are listed in the Irish Red Data Book and are legally protected under the Wildlife Act 1976.

The main threats to the quality of the site are water polluting activities such as run-off from fertiliser and slurry application and sewage discharge which have raised the nutrient status of some lakes to hypertrophic. Housing and boating developments are on the increase, adjacent to and within the site respectively. There is also significant fishing and shooting pressure on and around the lakes. Increased afforestation has resulted in some loss of wetland habitat and also loss of feeding ground for wintering birds such as Greenland White-fronted Geese.

The Lough Oughter area contains important examples of two habitats listed on Annex I of the E.U. Habitats Directive and supports a population of the Annex II species, otter. The site as a whole is the best inland example of a flooded drumlin landscape in Ireland and has many rich and varied biological communities. Nowhere else in the country does such an intimate mixture of land and water occur over a comparable area, and many of the species of wetland plants, some considered quite commonplace in Lough Oughter and its associated loughs, are infrequent elsewhere.

## 3.1.2 Upper Lough Erne SAC (Site Code UK 0016614) and SPA (Site Code UK 9020071) Site details

Location of Upper Lough Erne SAC/SCI/cSAC

Country	Northern Ireland
Unitary Authority	Fermanagh
Centroid*	H329279
Latitude	54 12 00 N
Longitude	07 29 40 W
SAC EU code	UK0016614
Status	Designated Special Area of Conservation (SAC)
Area (ha)	5738.38

<sup>\*</sup> This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.

### General site character

Inland water bodies (standing water, running water) (67%)

Bogs. Marshes. Water fringed vegetation. Fens (9%)

Humid grassland. Mesophile grassland (17%)

Broad-leaved deciduous woodland (7%)

Annex I habitats that are a primary reason for selection of this site

# 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation

Upper Lough Erne in Northern Ireland is a very large **natural eutrophic lake** situated in a drumlin landscape and has a predominantly limestone catchment. The site is an example of a northern or western eutrophic lake of glacial origin. The lake has a very long shoreline and numerous associated satellite lakes, many of which are included in the site. Aquatic vegetation of the *Magnopotamion* and *Hydrocharition* type is extensively-developed. Both club-rush – common reed *Scirpo – Phragmitetum* and reed canary-grass – shoreweed – spike-rush *Phalaris – Littorella – Eleocharis* associations are well-developed on the shore. There are transitions to swamp and fen vegetation.

### 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles

Upper Lough Erne represents one of the largest areas of semi-natural woodland remaining in Northern Ireland. Drier soils support mature stands of **old sessile oak woods**, which are particularly well-developed to the south of the lough. The woodlands consist of a canopy dominated by oak *Quercus petraea*, with occasional ash *Fraxinus excelsior* and birch *Betula pubescens*. Hazel *Corylus avellana* and holly *Ilex aquifolium* often form a distinct shrub layer. The ground flora is very variable and consists of a wide variety of species, including bluebell *Hyacinthoides non-scripta*,

sanicle Sanicula europaea, goldilocks buttercup Ranunculus auricomus, great woodrush Luzula sylvatica, and an abundance of the scarce thin-spiked wood-sedge Carex strigosa.

91EO Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) \* Priority feature

Upper Lough Erne is the most extensive area of alluvial forests in Northern Ireland. The woodland occurs in scattered stands around the edges of the lough, where the shoreline is ungrazed or only very lightly grazed. Fluctuating water levels and variations in exposure, substrate and management have resulted in the formation of a wide range of wet woodland communities. These are generally characterised by a canopy in which species such as willow Salix spp. and alder Alnus glutinosa are dominant, with more notable species such as aspen Populus tremula, guelder-rose Viburnum opulus and buckthorn Rhamnus cathartica scattered throughout. The ground flora is often similar to that of the swamp and fen zone, with a rich variety of sedges and herbs. In places, there are well-developed transitions to drier woodland types, including 91AO old sessile oak woods with Ilex and Blechnum.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

Not applicable.

Annex II species that are a primary reason for selection of this site

### 1355 Otter Lutra lutra

This site represents otter Lytra lutra in Northern Ireland. The province holds one of the strongest populations of otters in the UK. Upper Lough Erne consists of a large eutrophic lake with very extensive associated wetland habitats that holds a dense and large population of otters. In addition the surrounding countryside is rich in relatively unpolluted rivers and lakes and has a high density of semi-natural habitats, especially wetlands, supporting the otter population within the site.

Annex II species present as a qualifying feature, but not a primary reason for site selection

Not applicable.

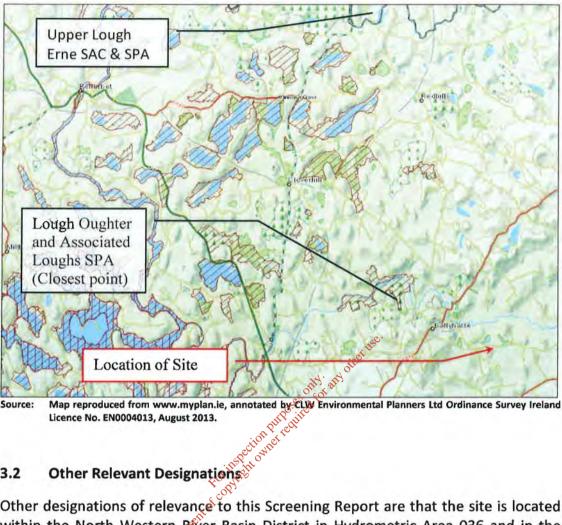


Figure 3.1 **Locations of Relevant Natura 2000 Sites** 

3.2

Other designations of relevance to this Screening Report are that the site is located within the North Western River Basin District in Hydrometric Area 036 and in the River Erne Catchment area. It is located within the vicinity of a proposed Natural Heritage Area Lough Oughter and Associated Loughs which extends to within 2km of the subject site.

### 4.0 ASSESSMENT OF LIKELY EFFECTS

### 4.1 Assessment of Likely Effects

A detailed assessment of the impacts, both direct, indirect and cumulative, of the farm which is the subject of this application on the identified Natura 2000 sites has been carried out as part of this Appropriate Assessment Screening. The IPPC Licence application documents and accompanying Environmental Impact Statement provides detailed information on the environmental impacts of the facility and this Screening process was carried out in tandem with the Environmental Impact Assessment.

As the existing farm is already operating with no evidence of issues with water pollution it is expected that this will continue and the potential for any increase in potential impacts on the Natura 2000 site as a result of the licensing of this activity will be limited. The Natura 2000 sites identified are located a significant distance (in excess of 2.4km) from the subject site and as no development is to take place within these designated sites there will not be any direct impacts as a result of the licensing of this site.

This Appropriate Assessment Screening report looks at potential indirect impacts on the designated sites as a result of the proposal. The licensable activity is and will continue to be located within the townland of Corgarive which is located within the North Western River Basin District. Storm water from the site discharges to the Annalee River which is in turn a tributary of the River Erne System. The Lough Oughter and Associated Loughs SAC is downstream of this point and as a result has the potential to be impacted by any contamination of water at the site.

Potential indirect impacts as a result of the location of the facility within the water catchment area of this site might include loss of habitat, loss of species, and demand on water supply, waste generation and potential impact on ground water. The issue identified as having the most potential for an impact on this Natura 2000 site was the management of organic fertiliser and potential for pollution of ground and surface water.

Our assessment of the activity to be licensed has concluded that there are no additional activities proposed for this site beyond what is already taking place. As a result the licensing of this facility will not have an adverse impact on the conservation objectives of the designated sites and the wildlife contained therein. The EIS describes efforts on site to ensure that no contamination of surface or ground water occurs as a result of the facility and it is considered that these mitigating measures are sufficient to ensure that there is a negligible risk to ground and surface water as a result of these operations. As there is no history of contamination of water from this site it is considered that the licensing of this facility will further reduce the potential for such an occurrence in the future.

Of particular concern in terms of potential for water contamination is the organic fertiliser generated by the activities on site. However all organic fertiliser generated is and will be in a dry/solid form and will be exported off site for use in compost production and/or in accordance with the requirements of S.I. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations. As a result and as is currently the case the export and management of this material will not have an impact on water quality. Furthermore the existing activities at this site have not had an adverse impact on these designated sites to date and given that there will be no increase in bird numbers on the farm and that the site will continue to operate to the highest animal welfare and environmental standards it can be concluded that there will be no impact on designated sites as a result of the granting of this IPPC Licence.

### 4.2 Assessment of 'In Combination Effects'

This site is an independent poultry unit which is run and managed separately from any other poultry farm in the vicinity. While there are no other poultry units in direct contact with this site, there may be some sites located upstream of this existing site which might, in combination with the subject site, increase the potential risk to the ground/surface water in the area. Furthermore there is potential for diffuse pollution occurring from the surrounding agricultural land which should be considered in combination with the subject facility. However this is outside the control of the applicant and as these lands are managed in accordance with S.I. 610 of 2010 European Communities (Good Agricultural Practice for Protection of Waters) Regulations it must be assumed that there will be no impact on the listed sites. In particular lands located outside the water catchment of the identified Natura 2000 sites cannot be expected to have an impact on this site either individually or in combination with the subject facility for which a licence is sought. It is considered that the proposed activity in combination with other agricultural activities within the zone of impact will not result in additional negative impacts on the identified Natura sites.

### 5.0 SCREENING STATEMENT WITH CONCLUSIONS

The conclusion on the completion of this Appropriate Assessment Screening Report is that it is considered that full Appropriate Assessment is not required for this I.P.P.C. Licence application for a poultry farm at Corgarive, Ballyhaise, Co. Cavan.

Given the nature of the licensable activity and the fact that the activity is already being carried out on the site for a number of years without complaint it is concluded that this activity will not have a significant effect on the conservation objectives or integrity of the identified sites and in particular the Upper Lough Erne SAC and SPA and the Lough Oughter and Associated Loughs SAC and as such appropriate assessment of these sites is not necessary in this case.

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Agent on behalf of the Applicant

## Appendix No. 13

## Record Details – Archaeological Survey of Ireland

Consent of copyright owner required for any other use.

### NATIONAL MONUMENTS SERVICE



### Archaeological Survey of Ireland

### **Record Details**





SMR Number: CV021-012----

Related SMR number(s): None

Class: Ringfort - rath

ITM Reference (E,N): 646392, 810314

Irish Grid Reference (E,N): 246451, 310304

Townland(s): CORGARVE

Record of Monuments and Places: Yes

Please check next page for description

Description:

Charge of the Line of the Line

(c) Ordnance Survey Ireland Scales are approximate only

The content of the Record Details page is copyright of the Department of the Arts, Heritage and the Gaeltacht. When referencing the content please use the following citation: "The 'SMR Number' followed by 'Archaeological Survey of Ireland, Record Details' (in parentheses) on http://www.archaeology.ie. The compiler/reviser's name should also be cited (where recorded) and the date of posting given; eg. SL045-007001-(Archaeological Survey of Ireland, Record Details) on http://www.archaeology.ie. Revised by Paul Walsh. Posted: 10 May 2007

### Description

Description: Raised circular area (int. diam. 31.9m) enclosed by a low earthen bank. Outside of this in the SE half of the site is a modern field drain which has presumably replaced the original fosse. From SW-N-E bank has been scarped and incorporated into the field boundary. Narrow break in bank at SE may represent original entrance.

The above description is derived from the published 'Archaeological Inventory of County Cavan' (Dublin: Stationery Office, 1995). In certain instances the entries have been revised and updated in the light of recent research.

Date of upload/revision: 22 December 2008

Date of last visit: 19 September 1990

Consent of copyright owner reduced for any other use.

## Appendix No. 14

European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2010 – S.I. 610 of 2010

Consent of copyright outlet required for any of



### STATUTORY INSTRUMENTS.

S.I. No. 610 of 2010

EUROPEAN COMMUNITIES (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS), REGULATIONS 2010

For integring the properties of the contract of

(Prn. A10/1894)

### S.I. No. 610 of 2010

### EUROPEAN COMMUNITIES (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS) REGULATIONS 2010

### PART I

### ARTICLE

### PRELIMINARY

- 1. Citation, commencement and application
- 2. Revocations
- 3. Interpretation

### PART 2

### **FARMYARD MANAGEMENT**

- 4. Minimisation of soiled water
- 5. Collection and holding of certain substances
- 6. Provision and management of storage facilities
- 7. General obligations as to capacity of storage facilities
- 8. Capacity of storage facilities for effluents and soiled water
  - 9. Capacity of storage facilities for pig manure
  - 10. Capacity of storage facilities for poultry manure
  - 11. Capacity of storage facilities for manure from deer, goats and sheep
  - 12. Capacity of storage facilities for manure from cattle
  - 13. Reduced storage capacity in certain circumstances
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### PART 3

### NUTRIENT MANAGEMENT

- 15. Interpretation, commencement etc.
- 16. Duty of occupier in relation to nutrient management

### PART 4

### PREVENTION OF WATER POLLUTION FROM FERTILISERS AND CERTAIN ACTIVITIES

- 17. Distances from a water body and other issues
- 18. Requirements as to manner of application of fertilisers, soiled water etc
- 19. Periods when application of fertilisers is prohibited
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- 21. Ploughing and the use of non-selective herbicides

### PART 5

### GENERAL

- 22. General duty of occupier
- 23. Keeping of records by occupier
- 24. False or misleading information
- 25. Authorised person
- 26. Offences and related matters

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- 27. Minister for Agriculture, Fisheries and Food
- 28. Making and review of action programme by the Minister
- 29. Agency
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- 31. Compliance with Data Protection Acts
- 32. Certificate in relation to nutrient content of fertiliser
- 33. Exemption for exceptional circumstances for research
- 34. Transitional provisions

### SCHEDULE 1

SOIL TEST

### SCHEDULE 2

CRITERIA AS TO STORAGE CAPACITY AND NUTRIENT MANAGEMENT

### SCHEDULE 3

### STORAGE PERIODS FOR LIVESTOCK MANURE

## SCHEDULE 4

PERIODS WHEN APPLICATION OF FERTILISERS TO LAND IS PROHIBITED

### SCHEDULE 5

CONDITIONS APPLYING IN RELATION TO DEROGATION

Consent of copyright owner required for any other use.

### EUROPEAN COMMUNITIES (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS) REGULATIONS 2010

WHEREAS, I, JOHN GORMLEY, Minister for the Environment, Heritage and Local Government, having regard to section 3(3) of the European Communities Act 1972 (as inserted by section 2 of the European Communities Act 2007) (hereinafter referred to as the Act of 1972), consider it necessary for the purpose of giving full effect to Directive 75/442/EEC of 15 July 1975<sup>1</sup>, Directive 80/68/EEC of 17 December 1979<sup>2</sup>, Directive 91/676/EEC of 12 December 1991<sup>3</sup>, Directive 2000/60/EC of 23 October 2000<sup>4</sup>, Directive 2003/35/EC of 26 May 2003<sup>5</sup>, Directive 2006/11/EC of 15 February 2006<sup>6</sup>, Directive 2006/12/EC of 5 April 2006<sup>7</sup>, Directive 2006/118/EC of 12 December 2006<sup>8</sup> and Directive 2008/98/EC of 19 November 2008<sup>9</sup> to make provision for offences under the following Regulations to be prosecuted on indictment:

AND WHEREAS, I consider that it is necessary, having further regard to section 3(3) of the Act of 1972, and for the purpose of ensuring that penalties in respect of an offence prosecuted in that manner under the following Regulations are effective, proportionate and have a deterrent effect, having regard to the acts or omissions of which the offence consists, to make such provision in the following Regulations:

AND WHEREAS, the Commission of the European Communities has, by decision of 22 October 2007, granted a derogation equested by Ireland pursuant to Council Directive 91/676/EEC of 12 December 1991;

NOW THEREFORE, I, JOHN GORMLEY, Minister for the Environment, Heritage and Local Government, in exercise of the powers conferred on me by section 3 of the European Communities Act 1972 (No. 27 of 1972) as amended by the European Communities Act 2007 (No. 18 of 2007) and for the purpose of giving effect to Directive 75,442/EEC of 15 July 1975<sup>1</sup>, Directive 80/68/EEC of 17 December 1979<sup>2</sup>, Directive 91/676/EEC of 12 December 1991<sup>3</sup>, Directive 2000/60/EC of 23 October 2000<sup>4</sup>, Directive 2003/35/EC of 26 May 2003<sup>5</sup>, Directive 2006/11/EC of 15 February 2006<sup>6</sup>, Directive 2006/12/EC of 5 April 2006<sup>7</sup>, Directive 2006/118/EC of 12 December 2006<sup>8</sup> and Directive 2008/98/EC of 19 November 2008<sup>9</sup> hereby make the following Regulations:

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<sup>1</sup>O.J. No. I. 194/39, 25 July 1975.

<sup>2</sup>O.J. No. L 20/43, 26 January 1980.

<sup>3</sup>O.J. No. L 375/1, 31 December 1991.

<sup>4</sup>O.J. No. L 327/1, 22 December 2000.

<sup>5</sup>O.J. No. L 156/17, 25 June 2003.

<sup>6</sup>O.J. No. L 64/52, 4 March 2006.

<sup>7</sup>O.J. No. L 114/9, 27 April 2006.

<sup>8</sup>O.J. No. L 372/19, 27 December 2006.
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O.J. No. L 312/3, 22 November 2008.

Notice of the making of this Statutory Instrument was published in "Iris Oifigiúil" of 28th December, 2010.

### PART 1

### PRELIMINARY

Citation, commencement and application

- (a) These Regulations may be cited as the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2010.
  - (b) These Regulations shall come into effect on 20 December 2010 save as is otherwise provided in relation to any particular provision.
  - (c) These Regulations shall apply to all holdings in the State.

### Revocations

2. The European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009 are revoked with effect from 20 December 2010.

### Interpretation

- 3. (1) In these Regulations, save where the context otherwise requires—
- "Act of 1992" means the Environmental Protection Agency Act, 1992 (No. 7 of 1992);
- "Agency" means the Environmental Protection Agency established under section 19 of the Act of 1992;
- "agriculture" includes the breeding, keeping and sale of livestock (including cattle, horses, pigs, poultry, sheep and any creature kept for the production of food, wool, skins or fur), the making and storage of silage, the cultivation of land, and the growing of crops (including forestry and horticultural crops);
- "application to land" in relation to fertiliser, means the addition of fertiliser to land whether by spreading on the surface of the land, injection into the land, placing below the surface of the land or mixing with the surface layers of the land but does not include the direct deposition of manure to land by animals;
- "aquifer" means a subsurface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater;
- "biochemical oxygen demand" for the purposes of sub-article (2)(b)(i) means a 5 day biochemical oxygen demand test done in accordance with method ISO 5815-1:2003, International Organisation for Standardization, or any update of that method;
- "chemical fertiliser" means any fertiliser that is manufactured by an industrial process;
- "Commission Decision of 22 October 2007" means the decision made by the Commission of the European Communities on 22 October 2007 granting a derogation requested by Ireland pursuant to the Nitrates Directive, or any subsequent amendment thereof;

"dry matter" for the purposes of sub-article (2)(b)(ii) means a test for total solids done in accordance with method 2540B, Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 21st Edition, 2005, or any update of that method;

"farmyard manure" means a mixture of bedding material and animal excreta in solid form arising from the housing of cattle, sheep and other livestock excluding poultry;

"fertiliser" means any substance containing nitrogen or phosphorus or a nitrogen compound or phosphorus compound utilised on land to enhance growth of vegetation and may include livestock manure, the residues from fish farms and sewage sludge;

"groundwater" means all water that is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil;

"holding" means an agricultural production unit and, in relation to an occupier, means all the agricultural production units managed by that occupier;

"livestock" means all animals kept for use or profit (including cattle, horses, pigs, poultry, sheep and any creature kept for the production of food, wool, skins or fur);

"livestock manure" means waste products excreted by livestock or a mixture of litter and waste products excreted by livestock. Even in processed form;

"local authority" means a city council or council within the meaning of the Local Government Act, 2001 (No. 37 of 2001);

"the Minister" means the Minister for the Environment, Heritage and Local Government;

"net area", in relation to a hording and the grassland stocking rate, means the gross area of the holding of the grassland as appropriate excluding areas under farm roads, paths, buildings, farmyards, woods, dense scrub, rivers, streams, ponds, lakes, sandpits, quarries, expanses of bare rock, areas of bogland not grazed, areas fenced off and not used for production, inaccessible areas and areas of forestry (including Christmas trees), or required to be totally destocked under a Commonage Framework Plan;

"the Nitrates Directive" means Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources;

"occupier", in relation to a holding, includes the owner, a lessee, any person entitled to occupy the holding or any other person having for the time being control of the holding;

"organic fertiliser" means any fertiliser other than that manufactured by an industrial process and includes livestock manure, dungstead manure, farmyard

### 8 [610]

manure, slurry, soiled water, silage effluent, non-farm organic substances such as sewage sludge, industrial by-products and sludges and residues from fish farms;

"ploughing" includes ploughing and primary cultivation, excluding light cultivation carried out to encourage natural regeneration;

"relevant local authority" means the local authority in whose administrative area a farm holding or part of a farm holding is situated;

"river basin district" means a river basin district established by the European Communities (Water Policy) Regulations, 2003 (S.I. No. 722 of 2003);

"slurry" includes-

- (a) excreta produced by livestock while in a building or yard, and
- (b) a mixture of such excreta with rainwater, washings or other extraneous material or any combination of these, of a consistency that allows it to be pumped or discharged by gravity at any stage in the handling process but does not include soiled water;

"soil test" means a soil sample taken in accordance with the soil sampling procedure set out in Schedule 1 and analysed in accordance with that Schedule, at a laboratory that meets the requirements of the Minister for Agriculture, Fisheries and Food for this purpose;

"soiled water" has the meaning assigned by sub-article (2);

"steep slope" means grown which has an average incline of 20% or more in the case of grassland of 15% or more in the case of other land;

"tidal waters" includes the sea and any estuary up to high water mark medium tide and any enclosed dock adjoining tidal waters;

"waters" includes-

- (a) any (or any part of any) river, stream, lake, canal, reservoir, aquifer, pond, watercourse, or other inland waters, whether natural or artificial.
- (b) any tidal waters, and
- (c) where the context permits, any beach, river bank and salt marsh or other area which is contiguous to anything mentioned in paragraph
   (a) or (b), and the channel or bed of anything mentioned in paragraph
   (a) which is for the time being dry, but does not include a sewer;

"waterlogged ground" means ground that is saturated with water such that any further addition will lead, or is likely to lead, to surface run-off;

and cognate words shall be construed accordingly.

- (2) (a) In these Regulations "soiled water" includes, subject to this subarticle, water from concreted areas, hard standing areas, holding areas for livestock and other farmyard areas where such water is contaminated by contact with any of the following substances—
  - (i) livestock faeces or urine or silage effluent,
  - (ii) chemical fertilisers,
  - (iii) washings such as vegetable washings, milking parlour washings or washings from mushroom houses,
  - (iv) water used in washing farm equipment.
  - (b) In these Regulations, "soiled water" does not include any liquid where such liquid has either—
    - (i) a biochemical oxygen demand exceeding 2,500 mg per litre, or
    - (ii) a dry matter content exceeding 1% (10 g/L).
  - (c) For the purposes of these Regulations, soiled water which is stored together with slurry or which becomes mixed with slurry is deemed to be slurry.
- (3) In these Regulations a reference to:-
  - (a) an Article, Part or Schedule which is not otherwise identified is a reference to an Article, Part or Schedule of these Regulations,
  - (b) a sub-article or paragraph which is not otherwise identified is a reference to a sub-article or paragraph of the provision in which the reference occurs, and
  - (c) a period between a specified day in a month and a specified day in another month means the period commencing on the first-mentioned day in any year and ending on the second-mentioned day which first occurs after the first-mentioned day.
- (4) In these Regulations a footnote to a table in Schedule 2 shall be deemed to form part of the table.

### PART 2

### FARMYARD MANAGEMENT

Minimisation of soiled water

4. (1) An occupier of a holding shall take all such reasonable steps as are necessary for the purposes of minimising the amount of soiled water produced on the holding.

- (2) Without prejudice to the generality of sub-article (1), an occupier of a holding shall ensure, as far as is practicable, that—
  - (a) clean water from roofs and unsoiled paved areas and that flowing from higher ground on to the farmyard is diverted away from soiled yard areas and prevented from entering storage facilities for livestock manure and other organic fertilisers, soiled water, and effluents from dungsteads, farmyard manure pits or silage pits and
  - (b) rainwater gutters and downpipes where required for the purposes of paragraph (a) are maintained in good working condition.

### Collection and holding of certain substances

- 5. (1) Livestock manure and other organic fertilisers, soiled water and effluents from dungsteads, farmyard manure pits or silage pits arising or produced in a building or yard on a holding shall, prior to its application to land or other treatment, be collected and held in a manner that prevents the run-off or seepage, directly or indirectly, into groundwaters or surface waters of such substances.
- (2) The occupier of a holding shall not cause or permit the entry to waters of any of the substances specified in sub-article (1).

### Provision and management of storage facilities

- 6. (1) Storage facilities for livestock manure and other organic fertilisers, soiled water and effluents from trungsteads, farmyard manure pits or silage pits shall be maintained free of trunctural defect and be maintained and managed in such manner as is necessary to prevent run-off or seepage, directly or indirectly, into groundwater or surface water, of such substances.
- (2) Storage facilities being provided on a holding on or after 31 March 2009 shall—
  - (a) be designed, sited, constructed, maintained and managed so as to prevent run-off or seepage, directly or indirectly, into groundwater or surface water of a substance specified in sub-article (1), and
  - (b) comply with such construction specifications for those facilities as may be approved from time to time by the Minister for Agriculture, Fisheries and Food.
- (3) Storage facilities other than those referred to in sub-article (2) shall be of such construction and design and shall be maintained and managed in such a manner so as to comply with the requirements of sub-article (1) and sub-article 5(2).
- (4) In this article "storage facilities" includes out-wintering pads, earthenlined stores, integrated constructed wetlands and any other system used for the holding or treatment of livestock manure or other organic fertilisers.

General obligations as to capacity of storage facilities

- 7. (1) The capacity of storage facilities for livestock manure and other organic fertilisers, soiled water and effluents from dungsteads, farmyard manure pits or silage pits on a holding shall be adequate to provide for the storage of all such substances as are likely to require storage on the holding for such period as may be necessary as to ensure compliance with these Regulations and the avoidance of water pollution.
- (2) For the purposes of sub-article (1) an occupier shall have due regard to the storage capacity likely to be required during periods of adverse weather conditions when, due to extended periods of wet weather, frozen ground or otherwise, the application to land of livestock manure or soiled water is precluded.
- (3) For the purposes of Articles 7 to 13, the capacity of storage facilities on a holding shall be disregarded insofar as the occupier does not have exclusive use of those facilities.
- (4) For the purposes of Articles 9 to 13 the capacity of facilities required in accordance with these Regulations for the storage of manure from livestock of the type specified in Tables 1, 2 or 3 of Schedule 2 shall be determined by reference to the criteria set out in the relevant table and the rainfall criteria set out in Table 4 of that schedule and shall include capacity for the storage for such period as may be necessary for compliance with these Regulations of rainwater, soiled water or other extraneous water which enters or is likely to enter the facilities.

Capacity of storage facilities for effluents and soiled water

- 8. Without prejudice to the generality of Article 7, the capacity of facilities for the storage on a holding of—
  - (a) effluent produced by ensiled forage and other crops shall equal or exceed the capacity specified in Table 5 of Schedule 2, and
  - (b) soiled water shall equal or exceed the capacity required to store all soiled water likely to arise on the holding during a period of 10 days.

Capacity of storage facilities for pig manure

- 9. (1) Without prejudice to the generality of Article 7, the capacity of facilities for the storage on a holding of livestock manure produced by pigs shall, subject to sub-article (2) and Article 13, equal or exceed the capacity required to store all such livestock manure produced on the holding during a period of 26 weeks.
- (2) The period specified in Schedule 3 shall, in substitution for that prescribed by sub-article (1), apply in relation to livestock manure produced by pigs on a holding where all the following conditions are met—
  - (a) the number of pigs on the holding does not at any time exceed one hundred pigs, and

(b) the holding comprises a sufficient area of land for the application in accordance with these Regulations of all livestock manure produced on the holding.

Capacity of storage facilities for poultry manure

- 10. (1) Without prejudice to the generality of Article 7, the capacity of facilities for the storage on a holding of livestock manure produced by poultry shall, subject to sub-article (2) and Article 13, equal or exceed the capacity required to store all such livestock manure produced on the holding during a period of 26 weeks.
- (2) The period specified in Schedule 3 shall, in substitution for that prescribed by sub-article (1), apply in relation to livestock manure produced by poultry on a holding where all the following conditions are met—
  - (a) tillage or grassland farming is carried out on the holding,
  - (b) the number of poultry places on the holding does not exceed 2,000 places, and
  - (c) the holding comprises a sufficient area of land for the application in accordance with these Regulations of all livestock manure produced on the holding.

Capacity of storage facilities for meniuse from deer, goats and sheep

11. Without prejudice to the generality of Article 7, the capacity of facilities for the storage on a holding of fivestock manure produced by deer, goats and sheep shall, subject to Article 3, equal or exceed the capacity required to store all such livestock manure produced on the holding during a period of six weeks.

Capacity of storage facilities for manure from cattle

12. Without prejudice to the generality of Article 7, the capacity of facilities for the storage on a holding of livestock manure produced by cattle shall, subject to Article 13 equal or exceed the capacity required to store all such livestock manure produced on the holding during the period specified in Schedule 3.

Reduced storage capacity in certain circumstances

- 13. (1) The capacity of facilities for the storage of livestock manure on a holding may, to such extent as is justified in the particular circumstances of the holding, be less than the capacity specified in Article 9, 10, 11 or 12, as appropriate, in the case of a holding where—
  - (a) the occupier of the holding has a contract providing exclusive access to adequate alternative storage capacity located outside the holding,
  - (b) the occupier has a contract for access to a treatment facility for livestock manure, or
  - (c) the occupier has a contract for the transfer of the manure to a person authorised under and in accordance with the Waste Management Acts

1996 to 2003 or the Environmental Protection Agency Acts 1992 to 2007 to undertake the collection, recovery or disposal of the manure.

- (2) Subject to sub-article (3), the capacity of facilities for the storage of livestock manure may be less than the capacity specified in Article 11 or 12, as appropriate, in relation to—
  - (a) deer, goats or sheep which are out-wintered at a grassland stocking rate which does not exceed 130 kg nitrogen at any time during the period specified in Schedule 4 in relation to the application of organic fertiliser other than farmyard manure, or
  - (b) livestock (other than dairy cows, deer, goats or sheep) which are outwintered at a grassland stocking rate which does not exceed 85 kg nitrogen at any time during the period specified in Schedule 4 in relation to the application of organic fertiliser other than farmyard manure.
- (3) Sub-article (2) shall apply only in relation to a holding where all the following conditions are met—
  - (a) all the lands used for out-wintering of the livestock are comprised in the holding,
  - (b) the out-wintered livestock have free access at all times to the required lands,
  - (c) the amount of manure produced on the holding does not exceed an amount containing 140kg of nitrogen per hectare per annum,
  - (d) severe damage to the surface of the land by poaching does not occur, and
  - (e) the reduction in storage capacity is proportionate to the extent of outwintered livestock on the holding.
- (4) In this article, a grassland stocking rate of 130 kg or 85 kg of nitrogen, as the case may be, means the stocking of grassland on a holding at any time by such numbers and types of livestock as would in the course of a year excrete waste products containing 130 kg or 85 kg of nitrogen, as the case may be, per hectare of the grassland when calculated in accordance with the nutrient excretion rates for livestock specified in Table 6 of Schedule 2.

### Operative date

14. (1) In the case of the storage capacity requirements prescribed by Articles 8, 9, 10, 11 or 12, the relevant article and Article 7 shall be in effect on the commencement of these Regulations.

### PART 3

### NUTRIENT MANAGEMENT

Interpretation, commencement etc

- 15. (1) In this Part, "crop requirement", in relation to the application of fertilisers to promote the growth of a crop, means the amounts and types of fertilisers which are reasonable to apply to soil for the purposes of promoting the growth of the crop having regard to the foreseeable nutrient supply available to the crop from the fertilisers, the soil and from other sources.
- (2) The amount of nitrogen or phosphorus specified in Table 7 or 8 of Schedule 2, as the case may be, in relation to a type of livestock manure or other substance specified in the relevant table shall for the purposes of this Part be deemed to be the amount of nitrogen or phosphorus, as the case may be, contained in that type of manure or substance except as may be otherwise specified in a certificate issued in accordance with Article 32.
- (3) The amount of nitrogen or phosphorus available to a crop from a fertiliser of a type which is specified in Table 9 of Schedule 2 in the year of application of that fertiliser shall, for the purposes of this Part, be deemed to be the percentage specified in that table of the amount of nitrogen or phosphorus, as the case may be, in the fertiliser.
- (4) The amount of nitrogen or phosphorus available to a crop from an organic fertiliser of a type which is not specified in Table 9 of Schedule 2 shall be deemed to be the amount specified in the table in relation to cattle manure or, where supported by the necessary analysis, the amount of nitrogen estimated on the basis of the C:N ratio of the compost in accordance with Table 9A unless a different amount has been determined in relation to that fertiliser by, or with the agreement of, the relevant local authority or the Agency, as the case may be.
- (5) A reference in this Part to the "nitrogen index" or the "phosphorus index" in relation to soil is a reference to the index number assigned to the soil in accordance with Table 10 or 11 of Schedule 2, as the case may be, to indicate the level of nitrogen or phosphorus available from the soil.

Duty of occupier in relation to nutrient management

- 16. (1) An occupier of a holding shall take all such reasonable steps as are necessary for the purposes of preventing or minimising the application to land of fertilisers in excess of crop requirement on the holding.
  - (2) (a) For the purposes of this article the phosphorus index for soil shall be deemed to be phosphorus index 3 unless a soil test indicates that a different phosphorus index is appropriate in relation to that soil.
    - (b) The soil test to be taken into account for the purposes of paragraph (a) in relation to soil shall, subject to paragraph (c), be the soil test most recently taken in relation to that soil.

- (c) Where a period of six years or more has elapsed after the taking of a soil test in relation to soil the results of that test shall be disregarded for the purposes of paragraph (a) except in a case where that soil test indicates the soil to be at phosphorus index 4.
- (3) Without prejudice to the generality of sub-article (1) and subject to sub-article (4), the amount of available nitrogen or available phosphorus applied to promote the growth of a crop specified in Table 12, 13, 14, 15, 16, 17, 18, 19, 20 or 21 of Schedule 2 shall not exceed the amount specified in the table in relation to that crop having regard to the relevant nitrogen index or phosphorus index, as the case may be, for the soil on which the crops are to be grown.
- (4) In the case of a holding on which grazing livestock are held, the amount of available phosphorus supplied to the holding by the concentrated feedstuff shall be the amount fed to such livestock in the previous calendar year and the phosphorus content of such concentrated feedstuff shall in the absence of a known phosphorus content or phosphorus content provided by the supplier be deemed to be 0.5 kg phosphorus in respect of each 100 kg of such concentrated feedstuff.
  - (5) (a) In the case of a holding on which grazing livestock are held, the amount of available nitrogen and available phosphorus supplied to the holding by manure from such livestock shall (save insofar as such manure is exported from the holding) be defined to be the relevant proportion of the amount of available hitrogen and available phosphorus contained in the total manure produced by such livestock.
    - (b) In paragraph (a), the "relevant proportion" means the proportion of a year as is represented by the storage period specified in Schedule 3 in relation to the holdings.

## PART 4

## PREVENTION OF WATER POLLUTION FROM FERTILISERS AND CERTAIN ACTIVITIES

Distances from a water body and other issues

- 17. (1) Chemical fertiliser shall not be applied to land within 2m of any surface waters.
  - (2) Organic fertiliser or soiled water shall not be applied to land within-
    - (a) 200m of the abstraction point of any surface waters, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying 100m<sup>3</sup> or more of water per day or serving 500 or more persons,
    - (b) 100m of the abstraction point (other than an abstraction point specified in paragraph (a)) of any surface waters, borehole, spring or well used for the abstraction of water for human consumption in a water

- scheme supplying 10m3 or more of water per day or serving 50 or more persons,
- (c) 25m of any borehole, spring or well used for the abstraction of water for human consumption other than a borehole, spring or well specified in paragraph (a) or (b),
- (d) 20m of a lake shoreline,
- (e) 15m of exposed cavernous or karstified limestone features (such as swallow-holes and collapse features), or
- (f) subject to sub-articles (13) and (14), 5m of any surface waters (other than a lake or surface waters specified at paragraph (a) or (b)).
- (3) Notwithstanding the requirements of sub-articles (2)(a), (2)(b) and (2)(c), the following distances shall apply from 12 January 2011 (in the case of drinking water abstractions located in counties Carlow, Cork, Dublin, Kildare, Kilkenny, Laois, Offaly, Tipperary, Waterford, Wexford and Wicklow), from 15 January 2011 (in the case of drinking water abstractions located in counties Clare, Galway, Kerry, Limerick, Longford, Louth, Mayo, Meath, Roscommon, Sligo and Westmeath) and from 31 January 2011 (in the case of drinking water abstractions located in counties Cavan, Donegal, Leitrim and Monaghan) or as soon as may be thereafter-
  - (a) 30m from the abstraction point in the case of any surface waters, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying 10m³ or more of water per day or serving 50 or more persons,
  - (b) 15m from the abstraction point in the case of any borehole, spring or well used for the abstraction of water for human consumption other than a borehole, spring or well specified in paragraph (a).
- (4) Sub-article (3) shall only apply in situations where a local authority has completed a technical assessment of conditions in the vicinity of the abstraction point, including taking into account variation in soil and subsoil conditions, the landspreading pressures in the area, the type of abstraction, available water quality evidence and the likely risk to the water supply source and the local authority has determined that the distance does not give rise to a risk to the water supply and a potential danger to human health.
- (5) A local authority may decide to apply the landspreading restriction to the upstream catchment area and to the close proximity downstream of the abstraction point in the case of any surface waters referred to in sub-article (3)(a).
- (6) A local authority may, in the case of any particular abstraction point and following consultation with the Agency, specify a greater distance to that specified in sub-articles (2) or (3) where, following prior investigations, the authority is satisfied that such distance is appropriate for the protection of waters being abstracted at that point. The distance so specified shall be determined by the

local authority using an evidence-based approach which takes into account the natural vulnerability of the waters to contamination from land spreading, the potential risk to human health arising from the landspreading activity as well as the water quality evidence, including information on water quality trends.

- (7) Notwithstanding the provisions of sub-articles (2), (3) and (6) a local authority shall as soon as may be practicable, following prior investigations and following consultation with the Agency, specify an alternative distance, including a landspreading exclusion area where necessary, in the case of a water abstraction for human consumption in a scheme supplying 10m³ or more of water per day, or serving 50 or more persons, where—
  - (a) on the basis of the results of monitoring carried out for the purposes of Article 7 of the European Communities (Drinking Water) (No. 2) Regulations 2007 (S.I. No. 278 of 2007), the quality of water intended for human consumption does not meet the parametric values specified in Part I of the Schedule of those Regulations or the quality of water constitutes a potential danger to human health, and it appears to the local authority that this is due to the landspreading of organic fertilisers or soiled water in the vicinity of the abstraction point, or
  - (b) investigations undertaken by a water services authority as part of the management of a water supply scheme indicate that the landspreading activity presents a significant risk to the drinking water supply or a potential danger to human health having regard to catchment factors in the vicinity of the abstraction point including but not limited to slope, vulnerability, and hydrogeology, the scale and intensity of land spreading pressures, the type of water supply source and water quality evidence, including information on water quality trends.
- (8) A distance specified by a local authority in accordance with sub-articles (3), (6) and (7) may be described as a distance or distances from an abstraction point, a hydrogeological boundary or topographical feature or as an area delineated on a map or in such other way as appears appropriate to the authority.
- (9) In relation to sub-articles (6) and (7), "prior investigations" means, in relation to an abstraction point, an assessment of the susceptibility of waters to contamination in the vicinity of the abstraction point having regard to—
  - (a) the direction of flow of surface water or groundwater, as the case may be,
  - (b) the slope of the land and its runoff potential,
  - (c) the natural geological and hydrogeological attributes of the area including the nature and depth of any overlying soil and subsoil and its effectiveness in preventing or reducing the entry of harmful substances to water, and

- (d) where relevant, the technical specifications set out in the document "Groundwater Protection Schemes" published in 1999 (ISBN 1-899702-22-9) or any subsequent published amendment of that document.
- (10) Where a local authority specifies a distance in accordance with either of sub-articles (3), (6) or (7) the authority shall, as soon as may be—
  - (a) notify the affected landowners, the Agency and the Department of Agriculture, Fisheries and Food of the distance so specified,
  - (b) send to the Agency a summary of the report of any investigations undertaken and the reasons for specifying the alternative distance,
  - (c) make an entry in the register maintained in accordance with Article 30(6), and
  - (d) publish and maintain on the local authority website an updated schedule of setback distances specified for each drinking water supply.
- (11) The requirements under sub-article (10) shall apply in the case of each local authority water supply and all other supplies for which the local authority has supervisory authority.
- (12) The Agency may issue advice and/or direction to a local authority in relation to any requirements including requirements for technical assessments and prior investigations arising under sub-articles (2), (3), (4), (5), (6), (7), (8) or (9) and a local authority shall comply with any such advice or direction given.
- (13) The distance of Specified in sub-article (2)(f) may be reduced to 3m where one of the following conditions is mct—
  - (a) the water in question is an open drain, or
  - (b) the area of land adjacent to the water is a narrow parcel of land not exceeding one hectare in area and not more than 50m in width.
- (14) Notwithstanding sub-articles (2)(f) and (13), organic fertiliser or soiled water shall not be applied to land within 10m of any surface waters where the land has an average incline greater than 10% towards the water.
- (15) Where farmyard manure is held in a field prior to landspreading it shall be held in a compact heap and shall not be placed within-
  - (a) 250m of the abstraction point of any surface waters or borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying 10m³ or more of water per day or serving 50 or more persons,
  - (b) 50m of any other borehole, spring or well used for the abstraction of water for human consumption other than a borehole, spring or well specified at paragraph (a),

- (c) 20m of a lake shoreline.
- (d) 50m of exposed cavernous or karstified limestone features (such as swallow-holes and collapse features),
- (e) 10m of any surface waters (other than a lake or surface waters specified at paragraph (a)).
- (16) Farmyard manure shall not be held in a field at any time during the periods specified in Schedule 4 as applicable to that substance.
- (17) Silage bales shall not be stored outside of farmyards within 20m of a surface watercourse or drinking water abstraction point in the absence of adequate facilities for the collection and storage of any effluent arising.

Requirements as to manner of application of fertilisers, soiled water etc.

- 18. (1) Livestock manure and other organic fertilisers, effluents and soiled water shall be applied to land in as accurate and uniform a manner as is practically possible.
- (2) Fertilisers or soiled water shall not be applied to land in any of the following circumstances-

  - (b) the land is flooded or likely to flood; of the land is snow-con-

  - (d) heavy rain is forecast within 48 hours, or
  - (e) the ground slopes steeply and, taking into account factors such as proximity to waters, soil condition, ground cover and rainfall, there is significant risk of causing water pollution.
- (3) A person shall, for the purposes of sub-article (2)(d), have regard to weather forecasts issued by Met Éireann.
  - (4) Organic fertilisers or soiled water shall not be applied to land—
    - (a) by use of an umbilical system with an upward-facing splashplate,
    - (b) by use of a tanker with an upward-facing splashplate,
    - (c) by use of a sludge irrigator mounted on a tanker, or
    - (d) from a road or passageway adjacent to the land irrespective of whether or not the road or passageway is within or outside the curtilage of the holding.
  - (5) Subject to sub-article (6), soiled water shall not be applied to land—

- (a) in quantities which exceed in any period of 42 days a total quantity of 50,000 litres per hectare, or
- (b) by irrigation at a rate exceeding 5 mm per hour.
- (6) In an area which is identified on maps compiled by the Geological Survey of Ireland as "Extreme Vulnerability Areas on Karst Limestone Aquifers", soiled water shall not be applied to land—
  - (a) in quantities which exceed in any period of 42 days a total quantity of 25,000 litres per hectare, or
  - (b) by irrigation at a rate exceeding 3 mm per hour

unless the land has a consistent minimum thickness of 1m of soil and subsoil combined.

(7) For the purposes of sub-article (6), it shall be assumed until the contrary is shown that areas so identified as "Extreme Vulnerability Areas on Karst Limestone Aquifers" do not have a consistent minimum thickness of 1m of soil and subsoil combined.

Periods when application of fertilisers is prohibited

- 19. (1) Subject to this article, the application of fertiliser to land is prohibited during the periods specified in Schedule 4.
  - (2) Sub-article (1) shall not apply in relation to the application to land of—
    - (a) soiled watersor
    - (b) chemical fertilisers to meet the crop requirements of Autumn-planted cabbage or of crops grown under permanent cover, or
    - (c) feefilisers whose application rate or usage rate is less than 1kg per hectare of available nitrogen or phosphorus.

Limits on the amount of livestock manure to be applied

- 20. (1) Subject to this article, the amount of livestock manure applied in any year to land on a holding, together with that deposited to land by livestock, shall not exceed an amount containing 170 kg of nitrogen per hectare.
- (2) For the purposes of sub-article (1), the amount of nitrogen produced by livestock and the nitrogen content of livestock manure shall be calculated in accordance with Tables 6, 7 and 8 of Schedule 2 except in the case of pig manure or poultry manure where a different amount is specified in a certificate issued in accordance with Article 32 in relation to that manure.
- (3) For the purposes of sub-article (1), the area of a holding shall be deemed to be the net area of the holding.

- (4) The application to land on a holding in any year of livestock manure in excess of the amount specified in sub-article (1) shall be deemed not to be a contravention of that sub-article where all of the following conditions are met—
  - (a) the occupier of the holding has made application in respect of that year to the Minister for Agriculture, Fisheries and Food for authorisation of a derogation from the requirements of that sub-article;
  - (b) the application under paragraph (a) is duly completed in the form and on or before the date specified for the time being by that Minister;
  - (c) the application under paragraph (a) is accompanied by an undertaking in writing by the occupier to comply with all the conditions specified in Schedule 5, and
  - (d) all the conditions set out in Schedule 5 are met by the occupier in relation to the holding.
- (5) Where an application is made to the Minister for Agriculture, Fisheries and Food in accordance with sub-article (4) that Minister shall consider the application and, where that Minister considers that the application does not comply with the conditions therein, shall issue a notice of refusal to the occupier.

Ploughing and the use of non-selective herbicides

- 21. (1) Where arable land is ploughed between 1 July and 30 November the necessary measures shall be taken to provide for emergence, within 6 weeks of ploughing, of green cover from a sown crop. A rough surface shall be maintained prior to a crop being sown in the case of lands ploughed between 1 December and 15 January.
- (2) Where grassland is ploughed between 1 July and 15 October the necessary measures shall be taken to provide for emergence by 1 November of green cover from a sown crop.
  - (3) Grassland shall not be ploughed between 16 October and 30 November.
- (4) When a non-selective herbicide is applied to arable land or to grassland in the period between 1 July and 30 November the necessary measures shall be taken to provide for the emergence within 6 weeks of the application, of green cover from a sown crop or from natural regeneration.
- (5) Where green cover is provided for in compliance with this article, the cover shall not be removed by ploughing or by the use of a non-selective herbicide before 1 December unless a crop is sown within two weeks of its removal.
- (6) In the case of land which is ploughed in the course of a ploughing competition under the auspices of the National Ploughing Association, a temporary exemption in the form of an extension to the time period specified in sub-article (1) or (2) for establishment of green cover after the land is ploughed may be granted to a person by the Minister for Agriculture, Fisheries and Food where it can be shown that conditions are such that an extension is necessary.

(7) A temporary exemption in accordance with sub-article (6) shall be granted by way of letter of authorisation issued to a person by the Minister for Agriculture, Fisheries and Food and shall be subject to such conditions as are specified therein.

### PART 5

### GENERAL

General duty of occupier

- 22. (1) An occupier of a holding shall ensure compliance with the provisions of these Regulations in relation to that holding.
- (2) An occupier of a holding shall comply with any advice or guidelines which may be issued from time to time for the purposes of these Regulations by the Minister, the Minister for Agriculture, Fisheries and Food or the Agency.

Keeping of records by occupier

- 23. (1) Records shall be maintained for each holding which shall indicate—
  - (a) total area of the holding,
  - (b) net area of the holding,
  - (c) cropping regimes and their individual areas,
  - (d) livestock numbers and type,
  - (e) an estimation of the annual fertiliser requirement for the holding and a copy of any Norrient Management Plan prepared in relation to the holding,
  - (f) quantities and types of chemical fertilisers moved on to or off the holding, including opening stock, records of purchase and closing stock,
  - (g) livestock manure and other organic fertilisers moved on to or off the holding including quantities, type, dates and details of exporters and importers, as the case may be,
  - (h) the results of any soil tests carried out in relation to the holding,
  - (i) the nature and capacity of facilities on the holding for the storage of livestock manure and other organic fertilisers, soiled water and effluents from dungsteads, farmyard manure pits or silage pits including an assessment of compliance with Articles 8 to 13,
  - (j) the quantities and types of concentrated feedstuff fed to grazing livestock on the holding, and
  - (k) the location of any abstraction point of water used for human consumption from any surface waters, borehole, spring or well.

- (2) Where fertiliser is used on a holding and a certificate of the type mentioned in Article 15 or 20 was issued in relation to that fertiliser in accordance with Article 32, a copy of the certificate shall be retained and be available for inspection on the holding for a period of not less than five years from the expiry of validity of the certificate.
- (3) Records shall be prepared for each calendar year by 31 March of the following year and shall be retained for a period of not less than five years.
- (4) Notwithstanding sub-paragraphs (1), (2) and (3), an occupier shall, where requested by the Minister, the Minister for Agriculture, Fisheries and Food, or the Agency, provide such information as is requested relating to the movement of organic fertilisers on or off the holding.

### False or misleading information

24. A person shall not compile information which is false or misleading to a material extent or furnish any such information in any notice or other document for the purposes of these Regulations.

### Authorised person

- 25. (1) In this article, "authorised person" means-
  - (a) a person who is an authorised person for the purposes of section 28 of the Local Government (Water Pollution). Acr, 1977 (No. 1 of 1977), or
  - (b) a person appointed under sub-article (12) to be an authorised person for the purposes of these Regulations.
- (2) An authorised person may for any purpose connected with these Regulations—
  - (a) enter and inspect any premises for the purposes of performing a function under these Regulations or of obtaining any information which he or she may require for such purposes,
  - (b) at all reasonable times, or at any time if he or she has reasonable grounds for believing that there is or may be a risk to the environment, or that an offence under these Regulations is being or is about to be committed, arising from the carrying on of an activity at a premises, enter any premises and bring onto those premises such other persons (including a member of the Garda Síochána) or equipment as he or she may consider necessary, or
  - (c) at any time if he or she has reasonable grounds for suspecting there may be a risk to the environment, or that an offence under these Regulations is being or is about to be committed, involving the use of any vehicle halt and board the vehicle and require the driver of the vehicle to take it to a place designated by the authorised person, and such a vehicle may be detained at that place by the authorised person for such period as he or she may consider necessary.

- (3) An authorised person shall not enter into a private dwelling under this article unless one of the following conditions applies—
  - (a) the entry is effected with the consent of the occupier,
  - (b) the authorised person has given the occupier not less than 24 hours notice in writing of the intended entry, or
  - (c) the entry is authorised by a warrant issued under sub-article (7).
- (4) Whenever an authorised person enters any premises or boards any vehicle, under this article, he or she may—
  - (a) take photographs and carry out inspections, record information on data loggers, make tape, electrical, video or other recordings,
  - (b) carry out tests and make copies of documents (including records kept in electronic form) found therein and take samples,
  - (c) monitor any effluent, including trade effluent or other matter, which is contained in or discharged from a premises,
  - (d) carry out surveys, take levels, make excavations and carry out examinations of depth and nature of subsoil,
  - (e) require that the premises or vehicle or any part of the premises or anything in the premises or vehicle shall be left undisturbed for a specified period, with the control of the premises or vehicle shall be left undisturbed for a specified period, with the control of the premises or vehicle shall be left undisturbed for a specified period, with the control of the premises or any part of the premises or any part of the premises or anything in the premises or vehicle or any part of the premises or anything in the premises or vehicle or any part of the premises or anything in the premises or vehicle shall be left undisturbed for a specified period, with the premises or vehicle shall be left undisturbed for a specified period.
  - (f) require information from an occupier of the premises of any occupant of the vehicle or any person employed on the premises or any other person on the premises,
  - (g) require the production of, or inspect, records (including records held in electronic form) or documents, or take copies of or extracts from any records or documents, and
  - (h) remove and retain documents and records (including documents held in electronic form) for such period as may be reasonable for further examination.

which the authorised person, having regard to all the circumstances, considers necessary for the purposes of exercising any function under these Regulations,

(5) (a) An authorised person who, having entered any premises or boarded any vehicle pursuant to these Regulations, considers that a risk, to the environment arises from the carrying on of an activity at the premises or involving the use of the vehicle, may direct the owner or occupier of the premises or the driver of the vehicle to take such measures as are considered by that authorised person to be necessary to remove that risk. (b) If the owner, occupier or driver referred to in paragraph (a) fails to comply with a direction of an authorised person under this subsection, the authorised person may do all things as are necessary to ensure that the measures required under the direction are carried out and the costs incurred by him or her in doing any such thing shall be recoverable from the owner or occupier by him or her, or the person by whom he or she was appointed.

### (6) A person shall not-

- (a) refuse to allow an authorised person to enter any premises or board any vehicle or to bring any person or equipment with him or her in the exercise of his or her powers,
- (b) obstruct or impede an authorised person in the exercise of any of his or her powers,
- (c) give to an authorised person information which is to his or her knowledge false or misleading in a material respect, or
- (d) fail or refuse to comply with any direction or requirement of an authorised person.
- (7) (a) Where an authorised person in the exercise of his or her powers under this article is prevented from entering my premises, or if the authorised person has reason to believe that evidence related to a suspected offence under these Regulations may be present in any premises and that the evidence may be removed therefrom or destroyed, or if the authorised person has reason to believe that there is a significant immediate risk to the environment, the authorised person or the person by whom he or she was appointed may apply to the District Court for a warrant under this article authorising the entry by the authorised person onto or into the premises.
  - (b) If, on application being made to the District Court under this article, the District Court is satisfied, on the sworn information of the authorised person that he or she has been prevented from entering a premises, the Court may issue a warrant authorising that person, accompanied, if the Court deems it appropriate by another authorised person or a member of the Garda Síochána, as may be specified in the warrant, at any time or times within one month from the date of the issue of the warrant, on production if so requested of the warrant, to enter, if need be by force, the premises concerned and exercise the powers referred to in sub-article (4) or (5).
- (8) An authorised person may, in the exercise of any power conferred on him or her by these Regulations involving the bringing of any vehicle to any place, or where he or she anticipates any obstruction in the exercise of any other power conferred on him or her by these Regulations, request a member of the Garda Síochána to assist him or her in the exercise of such a power and any member

of the Garda Siochána to whom he or she makes such a request shall comply with this request.

- (9) Any certificate or other evidence given, or to be given, in respect of any test, examination or analysis of any sample shall, in relation to that sample, be evidence, without further proof, of the result of the test, examination or analysis unless the contrary is shown.
- (10) When exercising any power conferred on him or her by these Regulations an authorised person shall, if requested by any person affected, produce a certificate or other evidence of his or her appointment as an authorised person.
- (11) Where a member of the Garda Síochána has reasonable cause to suspect that a person has committed an offence under these Regulations the member may without warrant arrest the person.
- (12) A person may be appointed as an authorised person for the purposes of these Regulations by the Minister, the Minister for Agriculture, Fisheries and Food or the Agency.
- (13) In this article "premises" includes land whether or not there are any structures on the land.

Offences and related matters

- 26. (1) A person who contravenes a provision of Parts 2 to 5 of these Regulations is guilty of an offence and shall be liable—
  - (a) on summary convection to a fine not exceeding €5,000 or to imprisonment for a serial not exceeding 3 months or,
  - (b) on conviction on indictment to a fine not exceeding €500,000 or to imprisonment for a term not exceeding one year or to both such fine and such imprisonment.
- (2) Where an offence under these Regulations has been committed by a body corporate and it is proved to have been so committed with the consent or connivance of or to be attributable to any neglect on the part of any person who, when the offence was committed, was a director, manager, secretary or other officer of the body corporate, or a person purporting to act in any such capacity, that person, as well as the body corporate, is guilty of an offence and liable to be proceeded against and punished as if guilty of the first-mentioned offence.
- (3) Where the affairs of a body corporate or unincorporated body are managed by its members, sub-article (2) shall apply to the acts and defaults of a member in connection with the functions of management as if such a member were a director or manager of the body.
- (4) A prosecution for an offence under these Regulations may be taken by a local authority or the Agency.

- (6) Where a court imposes a fine or affirms or varies a fine imposed by another court for an offence under these Regulations, prosecuted by the Agency or a local authority, it shall, on the application of the Agency or local authority concerned (made before the time of such imposition, affirmation or variation), provide by order for the payment of the amount of the fine to the Agency or local authority, as the case may be, and such payment may be enforced by the Agency or local authority, as the case may be, as if it were due to it on foot of a decree or order made by the court in civil proceedings.
- (7) Where a person is convicted of an offence under these Regulations the court shall, unless it is satisfied that there are special and substantial reasons for not so doing, order that person to pay to the Agency or local authority concerned the costs and expenses, measured by the court, reasonably incurred by the Agency or local authority in relation to the investigation, detection and prosecution of the offence, including costs incurred in the taking of samples, the carrying out of tests, examinations and analyses and in respect of the remuneration and other expenses of employees, consultants and advisers.
  - (8) (a) Where a local authority has reason to believe that an offence has been or is being committed in relation to a holding the authority may by notice require the person who appears to the authority to be the occupier to provide such information as is specified in the notice in relation to the alleged offence and it shall be the duty of that person to provide such information within the time frame specified in the notice insofar as is known to thin or her.
    - (b) A notice issued in accordance with paragraph (a) shall set out the provisions of Articles 22(1) and 24 and of sub-article (1).
- (9) Where a local authority considers that an offence under these Regulations has been or is being committed in relation to a holding the authority shall take such enforcement measures as are warranted by the circumstances and as are necessary to ensure satisfactory compliance with these Regulations and which, save in the case of a trivial or insignificant offence or specific mitigating circumstances, shall include prosecution for the alleged offence.
  - (10) (a) Where on application by motion by the Agency or a local authority to the District Court, Circuit Court or the High Court, the court hearing the application is satisfied that a person has failed or is failing to comply with a provision of Parts 2 to 5 of these Regulations, the court may by order—
    - (i) direct the person to comply with the provisions,
    - (ii) make such other provision, including provision in relation to the payment of costs, as the court considers appropriate, and

- (iii) make such interim or interlocutory order as it considers appropriate.
- (b) An application for an order under this article may be made whether or not there has been a prosecution for an offence under these Regulations in relation to the relevant failure of compliance and shall not prejudice the initiation of a prosecution for an offence under these Regulations in relation to the failure of compliance.
- (11) The powers, duties and functions assigned to a local authority or the Agency by this article are additional to, and not in substitution for, the powers, duties and functions assigned by the Local Government (Water Pollution) Acts 1977 and 1990 or any other statute.
- (12) A local authority shall maintain a register of inspections undertaken of farm holdings and information received for the purposes of Article 26(8) and shall keep updated a record of all enforcement measures undertaken in accordance with the requirements of Article 26(9).

## PART 6

## FUNCTIONS OF PUBLIC AUTHORITIES

Minister for Agriculture, Fisheries and Food

- 27. (1) The Minister for Agriculture, Fisheries and Food shall carry out, or cause to be carried out, such monitoring and evaluation programmes in relation to farm practices as may be necessary to determine the effectiveness of measures being taken in accordance with these Regulations.
- (2) The Minister for Agriculture, Fisheries and Food shall, in relation to each year, make the overall results of monitoring and evaluations carried out in accordance with sub-article (1) available to the Agency, to the Minister and, on request, to a local authority.
- (3) The Minister for Agriculture, Fisheries and Food shall prepare and keep updated a register of all holdings and shall, on request, make a copy of the register available to the Agency or a local authority.
- (4) The Minister for Agriculture, Fisheries and Food shall carry out, or arrange for the carrying out of, such monitoring, controls and reporting as are necessary for the purposes of Articles 8 (except Article 8(5)), 9 and 10 of the Commission Decision of 22 October 2007 or the related Articles in any subsequent Commission Decision.
- (5) The Minister for Agriculture, Fisheries and Food shall make available to a local authority and/or the Agency a report of an inspection or inspections carried out for the purposes of these Regulations and/or upon written request other information in relation to any holding or holdings as the case may be where such transfer of data is necessary for the purposes of ensuring compliance with these Regulations.

Making and review of action programme by the Minister

- 28. (1) The Minister shall, following consultation with the Minister for Agriculture, Fisheries and Food and other interested parties in accordance with this article, prepare and publish not later than 31 December 2013 and every four years thereafter, a programme of measures (hereafter in this article referred to as "an action programme") for the protection of waters against pollution from agriculture.
- (2) An action programme required by sub-article (1) shall include all such measures as are necessary for the purposes of Article 5 of the Nitrates Directive and shall contain a review of the action programme most recently made for those purposes and of such additional measures and reinforced actions as may have been taken.
- (3) The Minister shall ensure that all interested parties are given early and effective opportunities to participate in the preparation, review and revision of an action programme required by this article and for this purpose shall—
  - (a) inform interested parties by public notices or other appropriate means including electronic media, in relation to any proposals for the preparation, review or revision of an action programme,
  - (b) make available to interested parties information in relation to the proposals referred to in paragraph (a) including information about the right to participate in decision-making in relation to those proposals,
  - (c) provide an opportunity for comment by interested parties before any decision is made on the establishment, review or revision of an action programme,
  - (d) in making any such desision, take due account of the comments made by interested parties and the results of the public participation, and
  - (e) having examined any comments made by interested parties, make reasonable efforts to inform those parties of the decisions taken and the reasons and considerations on which those decisions are based, including information on the public participation process.
- (4) The Minister shall ensure that such reasonable time is allowed as is sufficient to enable interested parties to participate effectively.
- (5) Where the Minister publishes any information in accordance with this article, the Minister shall—
  - (a) do so in such manner as the Minister considers appropriate for the purpose of bringing that information to the attention of the public, and
  - (b) make copies of that information accessible to interested parties free of charge through a website or otherwise.

- (6) The Minister shall specify by way of public notice on a website or otherwise the detailed arrangements made to enable public participation in the preparation, review or revision of an action programme, including—
  - (a) the address to which comments in relation to those proposals may be submitted, and
  - (b) the date by which such comments should be received.
  - (7) In this article "interested parties" includes persons who-
    - (a) are carrying on any business which relies upon the water environment or which is affected, or likely to be affected, by the action programme, or
    - (b) are carrying on any activities which have or are likely to have an impact on water status, or
    - (c) have an interest in the protection of the water environment whether as users of the water environment or otherwise.

Agency

- 29. (1) (a) The Agency shall prepare as four-yearly intervals a report in accordance with Article 10 of the Nitrates Directive and shall submit such report to the Minister.
  - (b) The Agency shall prepare annually a report of the results of the monitoring carried out by local authorities for the purposes of Article 8(5) of the Commission Decision of 22 October 2007 (or the related Article in any subsequent Commission Decision) together with a concise report of water quality evolution and evaluation practice for the purposes of Article 10(1) (or the related Article in any subsequent Commission Decision) of that Decision and shall make such reports available to the Minister for Agriculture, Fisheries and Food by June in Every year.
- (2) The Agency shall undertake a review of progress made in implementing these Regulations and shall submit a report to the Minister by 30 June 2013 and every four years thereafter with the results of that review and with recommendations as to such additional measures, if any, as appear to be necessary to prevent and reduce water pollution from agricultural sources.
- (3) In preparing the reports required under sub-articles (1) and (2) the Agency shall consult with the Department of Agriculture, Fisheries and Food and the co-ordinating local authority in each river basin district, and such other persons as it considers appropriate.
- (4) The Department of Agriculture, Fisheries and Food and the relevant local authorities shall provide the Agency with such information appropriate to their functions as may be requested by the Agency for the purposes of these Regulations.

- (5) Each monitoring programme prepared by the Agency for the purposes of Article 10 of European Communities (Water Policy) Regulations, 2003 (S.I. No. 722 of 2003) shall include provision for such monitoring as is necessary for the purposes of these Regulations.
- (6) The Agency shall, as soon as may be but not later than 8 April 2009, make recommendations and give directions to a local authority in relation to the monitoring and inspections to be carried out, or other measures to be taken, by the authority for the purposes of these Regulations and may revise such recommendations and directions at such times thereafter as the Agency considers appropriate.
- (7) The Agency shall make such recommendations and give such directions to a local authority in relation to the monitoring of water quality as are necessary for the purposes of Article 8(5) of the Commission Decision of 22 October 2007 or the related Articles in any subsequent Commission Decision.
- (8) The powers, duties and functions assigned to the Agency by these Regulations are additional to, and not in substitution for, the powers, duties and functions assigned to the Agency by section 63 of the Environmental Protection Agency Act, 1992 (No. 7 of 1992) or any other statute.

## Local authorities

- 30. (1) A local authority shall carry out, or cause to be carried out, such monitoring of surface waters and groundwaters at selected measuring points within its functional area as makes it possible to establish the extent of pollution in the waters from agricultural sources and to determine trends in the occurrence and extent of such pollution.
- (2) A local authority shall carry out or cause to be carried out such inspections of farm holdings as is necessary for the purposes of these Regulations and shall aim to co-ordinate its inspection activities with inspections carried out by other public authorities.
- (3) For the purposes of sub-article (2) a local authority shall aim to develop co-ordination arrangements with other public authorities with a view to promoting consistency of approach in inspection procedures and administrative efficiencies between public authorities and to avoid any unnecessary duplication of administrative procedures and shall have regard to any inspection protocol which may be developed by the Minister, following consultation with the Minister for Agriculture, Fisheries and Food.
- (4) A local authority shall, in the exercise of its functions for the purposes of these Regulations—
  - (a) consult to such extent as it considers appropriate with the Minister, the Minister for Agriculture, Fisheries and Food, the Agency, the coordinating local authority in the relevant river basin district and such other persons as it considers appropriate, and

- (b) have regard to any recommendations made, and comply with any direction given, to the authority by the Agency in accordance with Article 29.
- (5) A local authority shall furnish to the Department of Agriculture, Fisheries and Food and such other persons as it considers appropriate a report of an inspection or inspections carried out for the purposes of these Regulations where non-compliance has been detected.
- (6) A local authority shall maintain a register of prior investigations carried out, and distances specified, for the purposes of Article 17.

Compliance with Data Protection Acts

31. The provision of information by a local authority, the Agency or the Minister for Agriculture, Fisheries and Food in accordance with Article 27, 29 or 30 of these Regulations shall not be a breach of the Data Protection Acts, 1988 and 2003.

Certificate in relation to nutrient content of fertiliser

- 32. (1) A certificate of the type specified in Article 15 or 20 may be issued by a competent authority where the authority is satisfied that the nutrient content of the fertiliser in question has been assessed on the basis of appropriate methodologies based on net farm balance and is as specified in the certificate.
- (2) A certificate issued under this price shall be valid for such period, not exceeding twelve months, as shall be specified in the certificate.
  - (3) In this article "competer authority" means-
    - (a) the Agency in relation to fertiliser arising in an activity in relation to which there is in force a licence under Part IV of the Act of 1992, and
    - (b) the Minister for Agriculture, Fisheries and Food in relation to any other fertiliser.
- (4) Notice of the methodologies used for the purposes of sub-article (1) shall be notified to the European Commission by the competent authority.

Exemption for exceptional circumstances for research

- 33. (1) A temporary exemption from a requirement of these Regulations may be granted to a person by the Agency or the Minister for Agriculture, Fisheries and Food in the case of exceptional circumstances relating to research.
- (2) A temporary exemption for the purposes of sub-article (1) shall be granted by way of certificate issued to a person by the Agency or the Minister for Agriculture, Fisheries and Food and shall be subject to such conditions, if any, as are specified in the certificate.
- (3) A certificate issued for the purposes of this article shall specify the nature, extent and duration of the exemption to which the certificate relates and a copy of the certificate shall be sent as soon as may be to the relevant local authority.

Transitional provisions

- 34. (1) A holding on which the application of fertilisers is carried out in accordance with a nutrient management plan approved on or before 1 December 2006 for the purposes of the Rural Environmental Protection Scheme shall be deemed to be compliant with the requirements of Article 16 for the duration of that plan.
- (2) The application to land in any year prior to 1 January 2007 of livestock manure in excess of the amount specified in Article 20(1) of the European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2006 shall be deemed not to be a contravention of that provision.
- (3) Notwithstanding Articles 16 and 26 and sub-article (2), the application to land of phosphorus in excess of the quantities prescribed by Article 16 shall not be an offence for the purposes of Article 16 in a case where—
  - (a) the excess arises from the application of spent mushroom compost or manure produced by pigs or poultry, and
  - (b) the excess amount does not exceed the amounts specified in Schedule 2, Table 22 of these Regulations from the prescribed dates, and
  - (c) such compost or manure, as the case may be, is produced on a holding on which activities were being carried out which gave rise to spent mushroom compost or manure from pigs or poultry and there has not been an increase in the scale of such activities on the holding since 1 August 2006, and
  - (d) suppliers of spent mushroom compost or manure produced by pigs and poultry retain records of the movement of such fertilisers off the holding in accordance with the requirements of Article 23, and
  - (e) the occupier of the holding on which the phosphorus is applied to land holds records which demonstrate compliance with paragraphs (a), (b), (c) and (d).

## SCHEDULE 1

#### SOIL TEST

A soil test refers to the results of an analysis of a soil sample carried out by a soil-testing laboratory that meets the requirements of the Minister for Agriculture, Fisheries and Food for this purpose.

The analysis for phosphorus and, where appropriate, organic matter content and the taking of soil samples shall be carried out in accordance with the procedures below.

#### Analysis for Phosphorus

The Morgan's extractable P test as detailed below shall be used to determine the Soil P Index.

## Preparation of soil sample

The soil shall be dried at 40°C for at least 24 hours (longer if necessary to ensure complete drying) in a forced draught oven with moisture extraction facilities. It shall then be sieved through a 2 mm mesh screen to remove stones and plant debris. After thorough mixing, it shall be sub-divided to obtain a representative sample. Where large samples are received at the laboratory, the entire sample shall be dried and sieved prior to sub-sampling for analysis.

## Morgan's Extracting Solution

Constituents:— 1,400 ml of 40% NaOH in approximately 15 litres of water. Add 1,440 ml of Glacial Acetic Acid. Make up to 20 litres with water and adjust pH to 4.8. The pH of the solution must be checked regularly and adjusted as necessary before use. A volume ratio of one part sieved soil to five parts of solution must be used, e.g. 6 ml of the prepared soil sample is extracted with a 30 ml volume of Morgan's Extracting Solution. The sample shall be shaken for 30 minutes to get a suitable mix and permit intended reaction, after which it is filtered through a No. 2 Whatman filter paper into vials for analysis. The filtered extract shall be analysed using standard laboratory techniques.

Results shall be reported in mg per litre.

## Analysis of organic matter

Organic Matter content shall be determined by loss on ignition.

Place a quantity of the prepared soil sample in an oven for 16 hours at 105°C. Remove and cool in a desiccator. Put approximately 4g of this soil into a preweighed crucible and determine the weight of the soil (initial weight). Place in a muffle furnace at 500°C for 16 hours for ashing. Remove the crucible, cool in a desiccator and determine the weight of the ash (final weight).

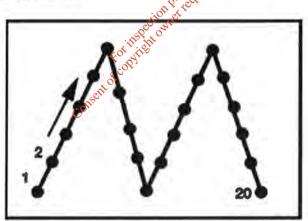
The organic matter of the soil is the difference in weight between the initial and final weights expressed as a percentage of the initial weight.

## Soil Sampling Procedure

The soil sample shall be taken in accordance with the procedure as specified below:

- (a) The sampling area shall not exceed 4 hectares. Exceptionally, where soil types and cropping of lands were similar during the previous five years, a sample area of up to 8 hectares shall be deemed acceptable.
- (b) Separate samples shall be taken from areas that are different in soil type, previous cropping history, slope, drainage or persistent poor yields.
- (c) Any unusual spots such as old fences, ditches, drinking troughs, dung or urine patches or where fertiliser or lime has been heaped or spilled shall be avoided.
- (d) A field shall not be sampled for phosphorus until 3 months after the last application of any fertiliser containing this nutrient (chemical or organic).
- (e) The sampling pattern shown in the figure below shall be followed. A soil core shall be taken to the full 100 mm depth. 20 cores shall be taken from the sampling area and placed in the soil container to make up the sample. Ensure the container is full of soil.
- (f) The field and sample numbers shall be written attached onto the soil container.

Figure 1: Sampling pattern



## SCHEDULE 2

# CRITERIA AS TO STORAGE CAPACITY AND NUTRIENT MANAGEMENT

Table 1 Slurry storage capacity required for sows and pigs

		m <sup>3</sup> /week <sup>1</sup>		
2.0:1	2.5:1	3.0:1	3.5;1	4.0:1
-	Ψ.	-1		0.174
0.312	0,355	0.398	0.441	0.483
0.024	0.031	0.039	0.046	0.053
	0.312	0.312 0.355	2.0:1     2.5:1     3.0:1       0.312     0.355     0.398	2.0:1     2.5:1     3.0:1     3.5:1       0.312     0.355     0.398     0.441

An additional 200mm freeboard must be provided in all covered tanks and 300mm freeboard in all uncovered tanks. Allowance must also be made for net rainfall during the specified storage period for uncovered tanks.

Table 2 Slurry storage capacity required for cattle, sheep and poultry

Livestock type	m³/week¹
Dairy cow	0.33
Suckler cow	0.29
Cattle (18.24 months old)	0.26
Cattle (18-24 months old)	0.26
Cattle (12-18 months old)	0.15
Cattle (6-12 months old)	0.15
Cattle (0-6 months old)	0.08
Lowland ewe chioniet	0.03
Mountain ewe institut of	0.02
Cattle (18-24 months old)  Cattle (12-18 months old)  Cattle (6-12 months old)  Cattle (0-6 months old)  Lowland ewe  Mountain ewe  Lamb-finishing  Poultry — layers per 4000 birds (30% DM)	0.01
Poultry — layers per 1000 birds (30% DM)	0.81

<sup>&</sup>lt;sup>1</sup>An additional 200mm freeboard must be provided in all covered tanks and 300mm freeboard in all uncovered tanks. Mowance must also be made for net rainfall during the specified storage period for uncovered tanks.

Table 3 Storage capacity required for dungstead manure

Livestock type	Solid fraction (m³/week)	Seepage fraction (m³/week)
Dairy cow	0.28	0.04
Suckler cow	0.25	0.03
Cattle > 2 years	0.23	0.02
Cattle (18-24 months old)	0.23	0.02
Cattle (12-18 months old)	0.13	0.01
Cattle (6-12 months old)	0.13	0.01
Cattle (0-6 months old)	0.07	0.01

<sup>&#</sup>x27;Allowance must also be made for net rainfall during the specified storage period for uncovered tanks.

Table 4 Average net rainfall during the specified storage period.

County	Millimetres per week
Carlow	24
Cavan	27
Clare	32
Cork	37
Donegal	38
Dublin	17
Galway	34
Kerry	45
Kildare	18
Kilkenny	23
Laois	22
Leitrim	33
Limerick	26
Longford	23
Louth	20
Mayo	40
Meath	5 N 9
Monaghan	offe 23
Offaly	Only and 20
Roscommon	ose ed to 26
Sligo	Duff equit 32
Гіррегату	chart 27
Waterford	31
Westmeath	21
Wexford	20 40 40 40 40 40 40 40 40 40 40 40 40 40
Wicklow	33

Table 5 Storage capacity required for effluent produced by ensiled forage Article 8

Crop	Minimum storage requirement (m³/100 tonnes)		
	Short Term Storage <sup>1</sup>	Full Storage	
Grass	7	21	
Arable silage	7	21	
Maize	4	10	
Sugar beet tops	15	50	

Only permitted where a vacuum tanker or an irrigation system is available on the holding.

Article 13 and 20

Table 6 Annual nutrient excretion rates for livestock

Livestock type	Total Nitrogen	Total Phosphorus
	kg/year	kg/year
Dairy cow	85	13
Suckler cow	65	10
Cattle (0-1 year old)	24	3
Cattle (1-2 years old)	57	8
Cattle > 2 years	65	10
Mountain ewe & lambs	7	1
Lowland ewe & lambs	13	2
Mountain hogget	4	0.6
Lowland hogget	6	I
Goat	9	1
Horse (>3 years old)	50	9
Horse (2-3 years old)	44	8
Horse (1-2 years old)	36	6
Horse foal (< 1 year old)	25	3
Donkey/small pony	<u>.</u> 30	5
Deer (red) 6 months — 2 years	13 25	2
Deer (red) > 2 years	25 25	4
Deer (fallow) 6 months — 2 years	7	1
Deer (fallow) > 2 years	13	2
Deer (sika) 6 months — 2 years pure dis	6	1
Deer (sika) > 2 years ctioner	10	2
Breeding unit (per sow places)	35	8
Deer (red) > 2 years  Deer (fallow) 6 months — 2 years  Deer (fallow) > 2 years  Deer (sika) 6 months — 2 years  Deer (sika) 5 years  Breeding unit (per sow praces)  Integrated unit (per sow place)  Finishing unit (per pig place)	87	17
Finishing unit (per pig place)	9.2	1.7
Laying hen per bird place	0.56	0.12
Broiler per bird place	0.24	0.09
Turkey per bird place	1	0.4

Article 15 and 20

Table 7 Amount of nutrient contained in 1m3 of slurry

Livestock type	Total Nitrogen (kg)	Total Phosphorus (kg)
Cattle	5.0	0.8
Pig	4.2	0.8
Sheep	10.2	1.5
Poultry — layers 30% DM	13.7	2.9

For the purposes of calculation, assume that 1m<sup>3</sup> = 1,000 litres = 1 tonne.

Table 8 Amount of nutrients contained in 1 tonne of organic fertilisers other than slurry

Livestock type		Total Nitrogen (kg)	Total Phosphorus (kg)
Poultry manure	broilers/deep litter	11.0	6.0
	layers 55% dry matter	23.0	5.5
	turkeys	28.0	13.8
Dungstead manure (cattle)		3.5	0.9
Farmyard manure		4.5	1.2
Spent mushroom compost		.8	2.5
Sewage sludge		Total nitrogen and total phosphorus content per tonne shall be as declared by the supplier in accordance with the Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 to 2001 and any subsequen amendments thereto.	
Dairy processing residues and other products not listed above		Total nitrogen and total phosphorus content per tonne based on certified analysis shall be provided by the supplier.	

Table 9 Nutrient availability in fertilisers

Fertiliser	Availability (%)			
	From January 1 2010 From January 1 2011		Phosphorus	
	From January 1 2010	From January 1 2011	From January 1 2007	
Chemical	100	donner 100	100	
Pig and poultry manure	50 insp	50	100	
Farmyard manure	30 000	30	100	
Spent mushroom compost	100 50 to ingle 30 45 to constitute	20	100	
Cattle and other livestock manure (including that produced on the holding)	C40	40	100	

Refers to year of application

Table 9A

Compost C:N ratio	N availability (%)
<10	25
12.5	17.5
15.0	10
17.5	5.5
>20	0.0

The determination of the C:N ratio shall be based on a methodology agreed with the Agency or the Minister for Agriculture, Fisheries and Food Refers to year of application

Table 10 Determining nitrogen index for tillage crops

	Tillage crops that fol	low permanent pasture	
	Nitrog	en Index	
Index 1	Index 2	Index 3	Index 4
The 5th tillage crop following permanent pasture. For subsequent tillage crops use the continuous tillage table.	The 3rd or 4th tillage crop following permanent pasture. If original permanent pasture was cut only, use index 1.	The 1st or 2nd tillage crop following permanent pasture (see also Index 4). If original permanent pasture was cut only, use index 2.	The 1st or 2nd tillage crop following very good permanent pasture which was grazed only.
Continuous	tillage: — crops that follo	woshort leys (1-4 years)	or tillage crops
	Prewo	ous crop	
Index 1	Index 2	Index 3	Index 4
Cereals Maize	Sugar beet Fodder beet		

Index 1	Index 2	Index 3	Index 4
Cercals Maize	Sugar beet Folder beet Potatoes Mangels Kale On seed rape, Peas, Beans		
Consent of	Leys (1-4 years) grazed or cut and grazed.		
	Swedes removed	Swedes grazed in situ	
Vegetables receiving less than 200 kg/ha nitrogen	Vegetables receiving more than 200 kg/ha nitrogen		

Table 11 Phosphorus index system

Soil phosphorus index	Soil phosphor	us ranges (mg/l)
	Grassland	Other crops
1	0.0-3.0	0.0-3.0
2	3.1-5.0	3,1-6.0
3	5.1-8.0	6.1-10.0
4.	> 8.0	>10.0

Table 12 Annual maximum fertilisation rates of available nitrogen on

Grassland stocking rate <sup>1</sup> (kg/ha/year)	Available nitrogen <sup>2</sup> (kg/ha)
≤ 170	226
Grassland stocking rate gr	eater than 170 kg/ha/year3
171-210	306
211-250	279
>250	2794

Total annual nitrogen (kg) excreted by grazing livestock averaged over the net grassland area (ha) (grazing and silage area). Stocking rate refers to grassland area only.

Table 13 Annual maximum fertilisation rates of phosphorus on grassland

Grassland stocking rate <sup>1</sup> (kg/ha/year)	1 Consent	Phospho	rus Index			
	1	2	3	4		
	Available Phosphorus (kg/ha) <sup>2, 3, 6</sup>					
≤ 130	35	25	15	0		
131-170	39	29	19	0		
	35 25 15					
	Grassland stockin	g rate greater than	170 kg/ha/year 4.5			
	Orassiano stockin	grate greater than	170 Kg/Harycai			
171 212	4.		24	-		
171-210	44	34	24	0		
171-210 211-250	44 49		24 29	0		

Total annual nitrogen (kg) excreted by grazing livestock averaged over the net grassland area (grazing and silage area). Stocking rate refers to grassland area only.

The fertilisation rates for soils which have more than 20% organic matter shall not exceed the amounts

and silage area). Stocking rate refers to grassland area only.

The maximum nitrogen fertilisation of grassland shall not exceed that specified for stocking rates less than or equal to 170 kg/ha/year unless a minimum of 5% of the net area of the holding is used to grow crops other than grass or a derogation applies in respect of the holding.

This table does not imply any departure from Article 20(1) which penhibits the application to land on a holding of livestock manure in amounts which exceed 170kg Nitrogen per hectare per year, including that deposited by the animals themselves (or 250kg in the case of a derogated holding).

The application of Nitrogen from livestock manure (including that deposited by the animals themselves) to the net grassland area shall not exceed 250 kg Nitrogen per hectare per year.

the net grassland area shall not exceed 250 kg Nitrogeo per hectare per year.

permitted for Index 3 soils.

Manure produced by grazing livestock on a holding may be applied to Index 4 soils on that holding in a situation where there is a surplus of such manure remaining after the phosphorus fertilisation needs of all crops on soils at phosphorus indices 1, 2 or 3 on the holding have been met by the use only of such manure produced on the holding.

The maximum phosphorus fertilisation of grassland shall not exceed that specified for stocking rates less than or equal to 170 kg/ha/year unless a minimum of 5% of the net area of the holding is used to grow crops other than grass or a derogation applies in respect of the holding.

This table does not imply any departure from Article 20(1) which prohibits the application to land on a

This table does not imply any departure from Article 20(1) which prohibits the application to land on a holding of livestock manure in amounts which exceed 170kg Nitrogen per hectare per year, including that deposited by the animals themselves (or 250kg in the case of a derogated holding).

An additional 15 kg of phosphorus per hectare may be applied on soils at phosphorus indices 1, 2, or 3 for each hectare of pasture establishment undertaken.

Table 14 Annual maximum fertilisation rates of available nitrogen on grassland (cut only, no grazing livestock on holding)

Available nitrogen (kg/ha)	
125	
100	
80	

Table 15 Annual maximum fertilisation rates of phosphorus on grassland (cut only, no grazing livestock on holding)

	Phosphorus Index				
	1	2	3	4	
	Available Phosphorus (kg/ha)				
First cut	40 30 11 <sup>8</sup> 20				
Subsequent cuts	10	Whe	10	0	

'The fertilisation rates for soils which have more than 20% organic matter shall not exceed the amounts permitted for Index 3 soils.

Table 16 Maximum ferrilisation rates of nitrogen on tillage crops

Crop	Spec Other	Nitroge	n Index	
	corning.	2	3	4
	For the Control of Colors	Available Nit	rogen (kg/ha)	
Winter Wheat1.2	210	180	120	80
Spring Wheat dise	140	110	75	40
Winter Barley <sup>1</sup>	160	135	100	60
Spring Barley <sup>1,3</sup>	135	100	75	40
Winter Oats <sup>1</sup>	145	120	85	45
Spring Oats <sup>1</sup>	110	90	60	30
Sugar Beet	195	155	120	80
Fodder Beet	195	155	120	80
Potatoes: Main crop	170	145	120	95
Potatoes: Early	155	130	105	80
Potatoes: Seed	155	130	105	80
Maize	180	140	110	75
Field Peas/Beans	0	0	0	0
Oilseed Rape	225	180	160	140

Crop		Nitroge	n Index	
Linseed	75	50	35	20
Swedes/Turnips	90	70	40	20
Kale	150	130	100	70
Forage Rape	130	120	110	90

Where proof of higher yields is available, an additional 20kg N/ha may be applied for each additional

tonne above the following yields:
Winter Wheat — 9.0 tonnes/ha Spring Wheat — 7.5 tonnes/ha
Winter Barley — 8.5 tonnes/ha Spring Barley — 6.5 tonnes/ha
Winter Oats — 7.5 tonnes/ha Spring Oats — 6.5 tonnes/ha
The higher yields shall be based on the best yield achieved in any of the three previous harvests, at 20% moisture content.

Where milling wheat is grown under a contract to a purchaser of milling wheat, an extra 30 kg N/ha may

he applied.

Where malting barley is grown under a contract to a purchaser of malting barley, an extra 20 kg N/ha may be applied where it is shown on the basis of agronomic advice that additional nitrogen is needed to address a proven low protein content in the grain.

Table 17 Maximum fertilisation rates of phosphorus on tillage crops

Crop		Phospho	orus Index	
	1	2	3	4
Winter Wheat 2	45	35	25	0
Spring Wheat <sup>2</sup>	45	35	25 25 d 15°	0
Winter Barley <sup>2</sup>	45	35	335	0
Spring Barley <sup>2</sup>	45	35	्रापि वर्ग 25	0
Winter Oats <sup>2</sup>	45	35 05	25	0
Spring Oats <sup>2</sup>	45	35 DUIPCU	25	0
Sugar Beet	70	Ston ner ie	40	20
Fodder Beet	70	15050	40	20
Potatoes: Main crop	125	35 35 35 35 35 35 36 35 36 35 36 36 36 37 38 38 38 38 38 38 38 38 38 38	75	50
Potatoes: Early	125	115	100	50
Potatoes: Seed	125 125 Ones	115	100	85
Maize	70	50	40	0
Field Peas	40	25	20	0
Field Beans	50	40	20	0
Oil Seed Rape	35	30	20	0
Linseed	35	30	20	0
Swedes/Turnips	70	60	40	40
Kale	60	50	30	0
Forage Rape	40	30	20	0

'The fertilisation rates for soils which have more than 20% organic matter shall not exceed the amounts

permitted for Index 3 soils.

Where proof of higher yields is available, an additional 3.8kg P/ha may be applied on soils at phosphorus indices 1, 2, or 3 for each additional tonne above a yield of 6,5 tonnes/ha. The higher yields shall be based on the best yield achieved in any of the three previous harvests, at 20% moisture content.

Table 18 Maximum fertilisation rates of nitrogen on vegetable crops

Crop		Nitrogen Index				
	1	2	3	4		
		A				
Asparagus (Establishment)	140	115	95	70		
Asparagus (After harvest)	100	100	100	100		
Broad Beans	0	0	0	0		
French Beans	90	85	75	70		
Beetroot	140	125	105	90		
Brussels Sprouts	120	115	105	100	180	
Spring Cabbage	50	35	15	0	250	
Other Cabbage	150	135	115	100	100	
Broccoli	120	110	100	90	20	
Cauliflower (Winter and Spring)	75	50	25	0	150	
Cauliflower (Winter and Spring)  Cauliflower (Summer and Autumn)  Carrots  Celery  Courgettes  Leeks  Lettuce  Onions  Scallions  Parsley  Parsnip  Peas (Market)  Spinach  Spinach  Swede	120	80	net 140.	0	120	
Carrots	90	75	55	40		
Celery	120	S Of all	65	50	180	
Courgettes	140	005,1125	105	90		
Leeks	100	edit 90	80	70	100	
Lettuce	1000 WILE	90	80	70	50	
Onions	inspa o	60	50	40	70	
Scallions 💠	OF 1190	80	70	60	60	
Parsley	100	80	60	40	150	
Parsnip agent	100	85	70	50	50	
Peas (Market)	0	0	0	0		
Rhubarb	100	90	80	70	200	
Spinach	140	125	105	90	100	
Swede Horticultural)	70	45	25	0		
Swede (Transplanted crops)	80	52	29	0		

	Phosphorus Index					
Crop	1	2	3	4		
	Available Phosphorus (kg/ha)					
Asparagus (Establishment)	40	25	15	10		
Asparagus (Maintenance)	27	17	10	7		
Broad Beans	60	45	35	20		
French Beans	60	45	35	20		
Beetroot	60	45	35	20		
Brussels Sprouts	60	45	35	20		
Spring Cabbage	60	45	35	20		
Other Cabbage	60	45	35	20		
Broccoli	60	45	35	20		
Cauliflower (Winter and Spring)	60	45	35	20		
Cauliflower (Autumn)	60	45	35	20		
Carrots	60	45	35 1156	20		
Celery	88	65	35 USE.	28		
Courgettes	60	45	त्रीत्र वर्ग 35	20		
Leeks	60	45	35	20		
Lettuce	60	45 purpodi	35	20		
Onions	60	Aprileiro	35	20		
Scallions	60	1050 45 1	35	20		
Parsley	60	FOT 10045	35	20		
Parsnip	60	SCOP 45	35	20		
Peas (Market)	60	45	35	20		
Rhubarb	60 CORS	45	35	20		
Spinach	60	45 65 45 45 45 pure equiv 45 pu	35	20		
Swede	70	60	45	35		

<sup>1</sup>The fertilisation rates for soils which have more than 20% organic matter shall not exceed the amounts permitted for Index 3 soils.

Table 20 Annual maximum fertilisation rates of nitrogen on fruit/soft fruit crops

	Available Nitrogen (kg/ha)
Apples (Dessert)	125
Apples (Culinary)	125
Pears	50
Cherries	70
Plums	70
Blackcurrants	80
Gooseberries	40
Raspberries	60
Strawberries	50
Redcurrants	60
Loganberries	50
Blackberries	50

Table 21 Annual maximum fertilisation rates of phosphorus on fruit/soft fruit crops

		15e.					
	Phosphorus Index						
	1	27. 22.70	3	4			
	Phosphorus Index  1						
Apples (Desert)	25	o tred 16	12	8			
Apples (Culinary)	20 Pita	12	10	8			
Pears	.050 60 m	8	4	0			
Cherries	got with	8	4	0			
Plums	5 cox 16	8	4	0			
Blackcurrants	20	16	12	8			
Gooseberries Off	20	16	-12	8			
Raspberries	20	16	12	8			
Strawberries	16	8	4	0			
Redcurrants	20	16	12	8			
Loganberries	20	16	12	8			
Blackberries	20	16	12	8			

The fertilisation rates for soils which have more than 20% organic matter shall not exceed the amounts permitted for Index 3 soils.

Table 22 Phosphorus excess limits

Article 34(3)

Date	Total available phosphorus (kg/ha)
20 December 2010	Not applicable
1 January 2013	5
1 January 2015	3
1 January 2017	0

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Articles 9, 10, 12,

#### SCHEDULE 3

#### STORAGE PERIODS FOR LIVESTOCK MANURE

- 1. The storage period specified for the purposes of Articles 9(2), 10(2),12 and 16(5)(b) is—
  - (a) 16 weeks in relation to holdings in counties Carlow, Cork, Dublin, Kildare, Kilkenny, Laois, Offaly, Tipperary, Waterford, Wexford and Wicklow;
  - (b) 18 weeks in relation to holdings in counties Clare, Galway, Kerry, Limerick, Longford, Louth, Mayo, Meath, Roscommon, Sligo and Westmeath;
  - (c) 20 weeks in relation to holdings in counties Donegal and Leitrim, and
  - (d) 22 weeks in relation to holdings in counties Cavan and Monaghan.
- 2. Where 20% or more of a holding lies within one or more counties of higher storage requirement as specified in paragraph 1, the holding shall be deemed for the purposes of this Schedule to lie wholly within the county in relation to which the longest storage period is specified.

e longest storage period is specified, to lie who e longest storage period is specified, any other to lie who e longest storage period is specified for any other to lie who e longest of convince to lie who e longest storage period is specified to lie who e longest storage period is specified.

## PERIODS WHEN APPLICATION OF FERTILISERS TO LAND IS PROHIBITED

- 1. In counties Carlow, Cork, Dublin, Kildare, Kilkenny, Laois, Offaly, Tipperary, Waterford, Wexford and Wicklow, the period during which the application of fertilisers to land is prohibited is the period from—
  - (a) 15 September to 12 January in the case of the application of chemical fertiliser
  - (b) 15 October to 12 January in the case of the application of organic fertiliser (other than farmyard manure)
  - (c) 1 November to 12 January in the case of the application of farmyard manure.
- 2. In counties Clare, Galway, Kerry, Limerick, Longford, Louth, Mayo, Meath, Roscommon, Sligo and Westmeath, the period during which the application of fertilisers to land is prohibited is the period from—
  - (a) 15 September to 15 January in the case of the application of chemical fertiliser
  - (b) 15 October to 15 January in the case of the application of organic fertiliser (other than farmyard manure).
  - (c) 1 November to 15 January in the case of the application of farmyard manure.
- 3. In counties Cavan, Donegals Leitrim and Monaghan, the period during which the application of fertilisers to land is prohibited is the period from—
  - (a) 15 September to 31 Tanuary in the case of the application of chemical fertiliser
  - (b) 15 October to 31 January in the case of the application of organic fertiliser (other than farmyard manure)
  - (c) 1 November to 31 January in the case of the application of farmyard manure.

#### SCHEDULE 5

#### CONDITIONS APPLYING IN RELATION TO DEROGATION

The following are the conditions for the purposes of Article 20(4) of these Regulations in relation to the application to land on a holding in any year of livestock manure in excess of the amount specified in Article 20(1).

## Application of manure and other fertilisers

- 1. The amount of livestock manure from grazing livestock applied to the land each year on grassland holdings, including by the animals themselves, shall not exceed the amount of manure containing 250 kg nitrogen per hectare, subject to the conditions laid down in paragraphs 2 to 7.
- 2. The total nitrogen inputs shall not exceed the crop requirement (within the meaning of Article 15). Total nitrogen application shall be differentiated on the basis of stocking rate and grassland productivity.
- 3. A fertilisation plan shall be kept for the holding describing the crop rotation of the farmland and the planned application of manure and nitrogen and phosphorus chemical fertilisers. The fertilisation plan shall be available on the holding by 1 March at the latest and shall include the following:
  - (a) the number of livestock, a description of the housing and storage system, including the volume of manure storage available;
  - (b) a calculation of manufe nitrogen (less losses in housing and storage) and phosphorus produced on the holding;
  - (c) the crop rotation and area of each crop, including a sketch map indicating location of individual fields;
  - (d) the foreseeable nitrogen and phosphorus crop requirements;
  - (e) the amount and the type of manure delivered outside the holding or to the holding;
  - (f) the results of soil analysis related to nitrogen and phosphorus soil status if available;
  - (g) nitrogen and phosphorus application from manure over each field (parcels of the holding homogeneous regarding cropping and soil type), and
  - (h) application of nitrogen and phosphorus with chemical and other fertilisers over each field.

A plan in relation to the holding shall be revised no later than seven days following any changes in agricultural practice on the holding to ensure consistency between the plan and actual agricultural practice on the holding.

- 4. Fertilisation accounts, including information related to management of soiled water, shall be kept in relation to the holding and shall be submitted to the Minister for Agriculture, Fisheries and Food each year in the format and by the date specified by that Minister.
- 5. The application made under Article 20, the fertilisation plan and the fertilisation accounts may be subject to control by the competent authority.
- 6. Nitrogen and phosphorus analysis in soil shall be performed for the holding at least every four years for each homogeneous area of the holding, with regard to crop rotation and soil characteristics. At least one analysis per five hectares of land shall be required.
- 7. Livestock manure shall not be spread in the autumn i.e. from 1 August to 15 October before grass cultivation.

## Land management

- 8. An area not less than 80% of the net area available for application on the holding of livestock manure shall be grass and the following measures shall be carried out:
  - (a) temporary grassland shall not be ploughed except in spring (i.e. from 1 February to 30 April);
  - (b) ploughed grass on all soil types shall be followed immediately by a crop with high nitrogen demand, and
  - (c) crop rotation shall not include leguminous or other plants fixing atmospheric nitrogen (except in the case of clover in grassland with less than 50% clover and of cereal and pea mixtures undersown with grass).

## Definitions

- 9. In this schedule, the following definitions shall apply:
  - (a) "grassland holding" means a holding where 80% or more of the net area available for application of livestock manure is grass;
  - (b) "grazing livestock" means cattle (with the exclusion of veal calves), sheep, deer, goats and horses, and
  - (c) "grass" means permanent grassland or temporary grassland (temporary implying leys of less than four years).



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JOHN GORMLEY,
Minister for the Environment, Heritage and Local
Government.

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#### **EXPLANATORY NOTE**

(This note is not part of the Instrument and does not purport to be a legal interpretation)

These Regulations revoke, and re-enact with amendments, the European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2009. These Regulations come into effect on 20 December 2010.

These Regulations, which give effect to Ireland's 2nd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources and include measures such as-

- · periods when land application of fertilisers is prohibited
- · limits on the land application of fertilisers
- · storage requirements for livestock manure, and
- monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.

The Regulations give further effect to several EU Directives including Directives in relation to protection of waters against pollution from agricultural sources ("the Nitrates Directive"), dangerous substances in water, waste management, protection of groundwater, public participation in policy development and water policy (the Water Framework Directive).

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