ENVIRONMENTAL IMPACT STATEMENT
(E.I.S.)

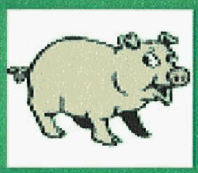
RELATING TO

PIG ENTERPRISE
AT

CROSSES,
MONAGHAN,
CO. MONAGHAN.

FOR

MR. JOHN ERSKINE,
CROSSES,
MONAGHAN,
CO. MONAGHAN.



C.L.W. ENVIRONMENTAL PLANNERS LTD.

MAY 2007

A. Non-Technical Summary

This Environmental Impact Statement (E.I.S.) has been prepared in respect of a proposed development on an existing 700 Sow Semi-Integrated Pig Unit located at Crosses, Monaghan, Co. Monaghan. This E.I.S. has been prepared after an Environmental Impact Assessment (E.I.A.) of the proposed development in accordance with the Planning and Development Acts 2000 – 2006, Planning & Development Regulations 2001-2006 and the Protection of Environment Act 2003.

This E.I.S. is in support of a planning application to Monaghan Co. Co. for a re-development of the existing site. It is proposed to demolish all of the existing farmyard structures and ancillary structures on site with the exception of 1 No. existing pig house and I No. overground manure storage tank. These structures are to be replaced by 2 No. modern pig buildings, 1 No. meal store, ancillary structures and associated site works.

While the proposed development will not result in intensification of production on site, as such, it is intended that it will result in a change in the stock numbers and types on the farm. Once completed, this site would be operated as a 1,200 Sow breeding unit, rearing pigs to c. 35 kg's, i.e. there would be no finishing pigs on the farm. This proposed development would also require approval from the E.P.A. and may/will require a technical amendment to, or review of, the I.P.C. Licence for this farm.

With regard to the aforementioned application it is important to note that while this proposed development ***will result in an increase in the herd size/sow numbers on this site, this will be offset by the reduction in finishing pigs currently held on the farm, and there will be no increase in associated manure production.*** The proposed development is being carried out by the applicant in order to comply with current welfare and environmental legislation, and forms part of an up-grade of the existing farm and a revision of the farming activities carried out.

This proposed development would be located in the townland of Crosses, Monaghan, Co. Monaghan, on an existing pig farm site. Pig farming activities have been carried out by Mr. Erskine on this site for >30 Years.

The pigs to be housed would be reared for sale/transfer to a dedicated pig grower/finisher farm(s). The capacity of the site following the proposed development will be 1,200 sows and their progeny to be reared to c. 35kg's. The current capacity of this farm when fully operational is c. 700 sows rearing 60% of pigs to factory weight and 40% to c.35kg's.

The capacity of this farm is in excess of that for which an Integrated Pollution Prevention and Control (I.P.P.C.) Licence from the Environmental Protection Agency (E.P.A.) is required. This licence has been granted by the E.P.A. for the existing farm in early 2005 and is refrerred to as I.P.C. Licence Reg. No. P 0696-01. This proposed development will require an amendment to, or revision of, this existing licence and all information with regard to same is to be submitted to the E.P.A. in due course. This enterprise, when operational, provides full-time employment for the owner Mr. John Erskine, supported by 4 full time staff and 1 part time staff member.

The site drains naturally through a field drain at the rear of the site to the Clontribret stream and ultimately to the Monaghan Blackwater River, which eventually discharges to Lough Neagh. Storm water from roofs and clean yards will discharge to field drainage via a storm water collection system. The storm water discharge point 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. There will be no discharge of soiled water or effluent to groundwater.

The site is in a rural agricultural area. The activity on the site is and will be pig farming activity appropriate to the area and consistent with the development plan for Co. Monaghan. The existing site is adjacent to a local road, the old Monaghan - Ballybay Public road. The pig farm can accommodate a semi-integrated herd of c. 700 sows and their progeny. The structures for which permission is sought would not be proposed to be located closer to the adjoining public road than the existing buildings.

The purpose of the proposed development is to re-model an existing pig farm and to provide the required accommodation for sows in order to comply with pending animal welfare regulations and to provide additional and improved manure storage capacity in order to aid compliance with the Nitrates Directive. Due to the nature and the extent of the repair work that would be otherwise be required to bring the existing buildings up to the required standards it was decided, that subject to the required permissions, to redevelop the majority of the site.

Alternatively the existing buildings could have been upgraded, stocked and operated at the level as currently permitted by the I.P.C. Licence, or a level as permitted by a revised I.P.C. Licence, however it is believed by the applicant that the proposed development will improve the farm, on the basis of aesthetic appearance, environmental performance, animal welfare, productivity and labour efficiency.

The only structures to remain will be 1 pig house and 1 overground manure storage tank. In order to achieve maximum efficiency on the farm it was decided to operate this farm as a 1,200 sow breeding only unit. Pigs will be moved off-site at c. 35kg's to specialised pig finishing accommodation.

The planting of shrubs and trees on the perimeter of the site, in addition to the existing hedgerows may help blend the site into the landscape, however due to the proximity of the site to the adjoining road this is likely to only be of limited benefit, and in this regard a visually sympathetic finish will be applied to all structures. Additional planting in accordance with the Department of Agriculture Specifications may be carried out to supplement the existing hedgerows where deemed necessary. The site is not in and is not near any NHA, SAC or SPA site and does not threaten any such site in any way.

The only hazardous waste generated at this site would be spent Fluorescent lighting tubes and veterinary waste (medicine containers, Syringes and needles). The annual quantity of each of these classes of waste generated in the site would be anticipated to be less then 75kg. It is proposed to accumulate the used fluorescent tubes in a specialised storage area in the site pending periodic disposal at a civic waste site / or returned to the supplier. It is proposed to accumulate the veterinary waste in a specified location in the site pending collection by an authorised collector for disposal at an authorised disposal site. It will be ensured that the contractor used for the removal of this material from the site is authorised by Meath Co. Co. (competent authority for this area) under the Waste Management (Collection Permit) Regulations. Provisional arrangements have been made with such a contractor, Transafe Ltd.

Weekly output of weaner pigs from this site would be about 630 animals. The associated weekly output of 208.8 m^3 pig manure would equate to about 10,857.6 m^3 per year. The proposed development will actually decrease the liveweight of pigs leaving the farm/week and will not increase the amount of organic fertiliser produced. There is strong local demand from other farmers for pig manure for use by them on their farmlands instead of manufactured chemical fertiliser products imported from outside the State.

The application of animal manure to farmland is regulated Under S.I. 378 of 2006 (and any subsequent amendments and/or derogations). All fertiliser from this farm will be allocated to be used in accordance with these Regulations. The applicant is entitled to give organic fertiliser to

any local farmer who wants it and under S.I. 378 of 2006 is obliged to maintain records of all dispatches of fertiliser from the holding. The farmers acquiring organic fertiliser from Mr. John Erskine's pig farm are obliged to record all consignments acquired and to use it in compliance with the aforementioned regulations.

Storage of manure/organic fertiliser on the site will be in compliance with S.I. 378 of 2006, i.e. the Nitrates Directive. It is proposed that all despatches of manure from the tanks on the site be recorded and the record will be maintained and be available at the site for inspection by an officer of the Local Authority at all reasonable times.

It is proposed that on-site storage capacity for pig manure including the new proposed structures will be about 8,984.28 m^3, sufficient for about 43 weeks production of manure/organic fertiliser, and well in excess of the minimum 26 weeks storage capacity generally required for pig manure. This provision for manure storage capacity will provide the applicant, Mr. John Erskine, with a significant advantage with regard to the management of organic fertiliser produced on this farm.

It is also proposed that manure will not be supplied to customer farmers in Co. Monaghan for use between 15 October and 31 January in any year, while organic fertiliser that may be transported outside of the county will not be supplied to customer farmers for use during the prohibited periods as applicable. Outside of this prohibited period, organic fertiliser will be despatched/withdrawn from the site to/by a farmer customer only in response to an order from that customer. Managed and used in that way, organic fertiliser produced on this farm will not have any adverse impact on environmental parameters either inside the site or outside the site. It is also important to remember that the proposed development will not increase the amount of manure produced on the farm, however it will increase the quantity and quality of the available storage capacity in order to aid compliance with requirements of the S.I. 378 of 2006.

Emissions to air from the site would be small, and would be mostly attributable to the animals that are currently on the site. There will be no increase in emissions as a result of this proposed development as there is no increase in intensity and/or manure production. The proposed development has the potential to reduce odour emissions from the farm due to the provision of modern buildings and ventilation systems. The odour associated with a site of the existing capacity does not and will not cause annoyance and will not interfere with amenity outside the boundary of the site.

The proposed development will be a significant improvement to this site, aesthetically, environmentally and from the point of view of animal welfare and performance.

A small proportion of animals born and maintained in a farm die prematurely. These carcasses and any associated animal tissue waste are stored in a covered sealed container on site, awaiting collection by an authorised contractor. College Proteins Ltd. are an authorised contractor who regularly remove these carcasses, and any other such material to their authorised rendering plant at Nobber, Co. Meath, in compliance with existing requirements. The proposed development will not increase the amount of this waste, and may have the potential to reduce it due to the provision of modern accommodation to replace existing older accommodation. Correspondence from College Proteins with regard to the disposal of animal tissue waste is included hereafter.

The potential of the proposed development for adverse impact on environmental parameters is negligible, if any, because of the nature and scale of the proposed development, (i.e. there is no net increase in scale and certain development is required to comply with welfare and environmental regulations), and because all wastes would be removed from the site by authorised waste contractors for either disposal or use elsewhere. While there is 1 No. building to be retained, all other buildings will be replaced by 2 No. specialised modern pig buildings. This proposed development will practically eliminate the movement of pigs on outside passageways, (except for the movement of sows/gilts), thus significantly reducing the amount of soiled water entering the manure storage tanks, thus minimising manure volumes. 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.

All activities associated with decommissioning of this site would be carried out in accordance with the requirements of the existing/revised I.P.C. Licence issued to this farm, and in line with he conditions of any subsequent grant of planning permission issued by Monaghan Co. Co.

B. ORGANISATIONS AND BODIES CONSULTED

The scoping exercise of the EIS was carried out in line with previous submissions to Local Authorities. Other organisations and bodies consulted include: -

- Teagasc
- Geological Survey of Ireland.
- Met Eireann.
- Central Fisheries Board.
- Office of Public Works.
- Department of Agriculture.
- Department of the Environment.
- National Parks and Wildlife Service.
- Environmental Protection Agency.

1. Introduction

This Environmental Impact Statement (EIS) is compiled following an Environmental Impact Assessment (E.I.A.) of a proposed development on an existing pig farming enterprise operated on a site at Crosses, Monaghan, Co. Monaghan. This E.I.S. is to be submitted to Monaghan County Council in support of an application for Planning Permission for the construction of 2 No. New Pig Houses (House No. 1 and 2) and 1 No. Meal Store to comply with new Animal Welfare Regulations, to aid compliance with the Nitrates Directive (S.I. 378 of 2006), to modernise and upgrade the structures on this farm, and, to operate the farm as a 1,200 sow breeding unit. House Reference numbers correspond with those indicated on the Site plan contained in Appendix No. 2 and the Architects Drawings contained in Appendix No. 3.

While the proposed development will not result in intensification of production on site, as such, it is proposed that it will result in a change in the stock numbers and types on the farm. Once completed, this site would be operated as a 1,200 Sow breeding unit, rearing pigs to c. 35 kg's, i.e. there would be no finishing pigs on the farm. This proposed development would also require approval from the E.P.A. and may/will require a technical amendment to, or review of, the I.P.C. Licence for this farm.

With regard to the aforementioned application it is important to note that while this proposed development ***will result in an increase in the herd size/sow numbers on this farm, this will be offset by the reduction in finishing pigs currently held on the farm, and there will be no increase in associated manure production.*** The proposed development is required to comply with current welfare and environmental legislation, and form part of an overall up-grade and modernisation of the farm. The existing farm is a semi-integrated pig farm for the breeding and rearing of pigs, based on a maximum herd of c. 700 sows finishing c. 60% of the progeny on the farm. This proposed development will increase the breeding capacity of this farm to c. 1,200 sows, however this will be offset by the reduction in finishing pig numbers to 0.

This E.I.S. is drafted with particular regard to the Planning and Development Acts 2000-2005, the Planning and Development Regulations 2001-2006 and in particular Article 94 and Schedule 6 of the 2001 Planning and Development Regulations, and the Protection of Environment Act 2003, and is submitted to provide information that may be helpful to the planning authority in making its decision on the application for the proposed development.

1.1 Description of the proposed development

The proposed development will not result in the intensification of production on site which currently accommodates 700 sows and their progeny, however it will result in a change to stock numbers and types as it is proposed to operate this farm as a 1,200 sow breeding only unit.

The impact of the proposed change from a 700 Sow-Semi Integrated pig farm to a 1,200 breeding farm will be negligible due to the fact that the increase in breeding/weaner pigs will be more than off set by the elimination of finishing pigs from the site.

The purpose of the proposed development is to renovate an existing pig farm and to provide the required accommodation for sows in order to comply with pending animal welfare regulations and to provide additional and improved manure storage capacity in order to aid compliance with the Nitrates Directive. These two requirements would have required further development on the farm even is stock numbers and/or the production system practiced on site, were to remain unchanged. Due to the nature and the extent of the repair work that would be otherwise be required to bring the existing buildings up to the required standards it was decided, that subject to the required permissions, to redevelop the majority of the site. The only original structures to remain will be 1 pig house and 1 overground manure storage tank. In addition to the above, and in order to achieve maximum efficiency on the farm with regard to the use of specialised labour and facilities which is more critical in the breeding and early grower/weaner stages of pig production, it was decided to operate this farm as a 1,200 sow breeding only unit.

The permission sought is specifically designed to construct a new Loose Dry Sow House to comply with Animal Welfare Regulations and replacement farrowing and weaner accommodation. The one existing house to remain will be used as a gilt rearing house. The buildings have been designed and planned so as to aid compliance with the Nitrates directive.

The purpose of the existing development is/was for the rearing of pigs for sale to the meat processing industry for the production of pig meat products for human consumption. A certain proportion (c. 40%) of the pigs were/are sold off the farm as weaners. The purpose of the proposed development is for the rearing of pigs for sale/transfer to a specialised pig rearing farm and ultimately for the production of pig meat products for human consumption.

The location of the proposed development is in a rural, farming area in Crosses, Monaghan, Co. Monaghan. This site is located adjacent to the old Monaghan – Ballybay road. The site is relatively level ground with the majority of the site above the adjoining road level. The site also slopes significantly as you move in a Northwest to South east direction. The location of this farm yard is identified on the location maps included in Attachment 1. The layout of the proposed development is shown on the Site Layout plan included in Attachment 2. The site is small and compact, and is designed to be safe, secure and efficient in operation.

According to the Geological Survey of Ireland (County Monaghan Groundwater Protection Scheme) the aquifer classification appropriate to the site and the surrounding area is a **Poor Aquifer**. It is protected in the vicinity of the proposed development by a layer of overburden made up of mainly Gleys 50% (+ Acid Brown Earths 40% & Interdrumlin Peats and peaty Gleys 10%) greater that 2.4 m deep, verified by the previous excavation for existing underground manure tanks on the existing/adjoining site. This area is classified as Soil Association 25 on the Soil map of Ireland.

The proposed development comprises steel framed structures with insulated concrete or steel side cladding, to enclose slatted pens in which pigs will be accommodated and fed, and under-slat tanks in which manure will be collected and stored pending despatch to farmers who order a supply for use by them on their farmlands. Plans of the proposed buildings are contained in Appendix No. 4. This is in keeping with the design principles of existing structures on the site. The calculation of manure storage capacity is contained in Appendix No. 5.

All despatches of pigs from the site will be through the loading bay adjacent to the proposed structures. All despatches of organic fertiliser from the site would be from one or other of the manure extraction points to be located around the farmyard, and through the yard to the public road. Lay-out and facilities are designed to provide for best practice within the industry to minimise potential sources of pollution.

The scale of the proposed development is medium - large by current industry standards, and would be one of the larger pig units in Co. Monaghan, however this will be offset by the fact that there will be no finishing pigs on this farm. Output of pigs will be about 620/640 pigs per week at c. 35kg's.

The structure of the proposed development will have a total floor area of c. 7,270 m^2, all of which will be for the accommodation of pigs, to provide access to pigs or to provide necessary ancillary structures and facilities. The new Dry Sow House (House No. 2) will be c. 100 m long and c. 32 m wide, c. 2.125 m high at the eaves and c. 6.602 m high at the apex. The new Farrowing/Weaner House will be c. 85.5 m long and c. 46.34 m wide, 2.75 m high at the eaves and c. 6.6364 m high at the apex. The proposed meal store is to be c. 10.5 meters square wit an overall height of c. 8.75m.

The proposed buildings will be substantially similar in design to the existing buildings on the farm, although will be larger in scale, due to the reduced number of buildings. It is envisaged that due to the nature, design an finish of the proposed buildings that this proposed development will not be intrusive in the landscape and will be a significant improvement when compared to the existing site.

Access from the public road is to be direct into the farmyard via an existing entrance, c. 5 – 6 m wide.

1.2 Measures envisaged in order to avoid, reduce and if possible, remedy significant adverse effects.

The measures considered necessary are:

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

(ii) A secure access to the site and effective landscaping, comprising hedging, trees, and landscaped earth embankments where necessary, to screen the installation from obtrusive view from the public road and to blend it into the rural landscape.

(iii) Provision of a storm water drainage system to properly collect and discharge to field drainage all clean rainwater from roofs and clean surfaces.

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

(v) The collection and the removal from the site of all animal manure and soiled waters to be used by local farmers as fertiliser on their farmlands.

(vi) The collection and the removal from the site of hazardous waste materials (spent fluorescent lighting tubes, empty aerosol containers and veterinary waste) generated on the site. Such wastes removed from the site are to be removed only by authorised personnel/contractors to sites authorised or agreed as appropriate for the disposal or recovery of the waste concerned.

(vii) The collection and the removal from the site of all dead animals and all animal tissues. Collection is currently undertaken by College Proteins Ltd., an authorised waste collector, who transport the carcasses for disposal or recovery at their authorised rendering plant.

(viii) Ensure collection of animal tissue from the site is in appropriate watertight and covered containers, and timely removal so as to ensure minimal generation or release of odours either at the site, or during transit to the disposal/recovery destination.

(ix) Monitor and maintain records of all monitoring of storm water discharged from the site.

(x) Record and maintain required records of all consignments of waste despatched from the site.

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.

It must be born in mind that the proposed development, once completed, will not increase any additional wastes, odours etc. that could cause an adverse environmental effect. Where possible measures have been implemented to improve on the existing activities on site.

1.3 Data required to identify and assess the main effects that the proposed development is likely to have on the environment

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

If and when the proposed development for which permission is being sought is authorised and constructed it would be integrated into the existing farm enterprise operated by the applicant.

As one of the main objectives of this proposed development is to upgrade and modernise an existing pig farm, the only realistic site for the proposed development to provide the required facilities and to comply with the new animal welfare regulations and aid compliance with the nitrates directive is in the existing farm yard, so that all existing access and services can be easily utilised.

Accordingly, development on an alternative site was deemed impracticable and therefore no other site was considered. In addition to the above the applicant has had an good history on this farm with no history of any complaints from neighbours, and has an I.P.C. Licence in place for pig rearing activities on this farm.

2. Further information

2.1.1 Description of the physical characteristics of the proposed development and the land use requirements during construction and operation.

The physical characteristics of the proposed development will comprise;-

- An entrance through an existing access at the public road.
- Additional landscaping plantations along the boundary where deemed necessary and beneficial. [See landscaping specifications contained in Appendix No. 13].
- Steel frame structures within which the pigs would be accommodated on slatted floors and fed [See architects drawings contained in Appendix No. 3].
- Underground, under slat reinforced concrete manure tanks in which manure would be collected and stored pending despatch from the site in response to orders from local farmers who would acquire it to maintain the fertility of their farmland. [See additional information contained in Appendix No. 3 & 5].

Except for the entrance from the public road, all of the structures on the site will be screened or blended in to the surrounding landscape, in so far as is possible, by the external finish proposed for the structures and the landscaping features described. The external finish to the proposed buildings will be as visually sympathetic and unobtrusive as possible and will be in line with any recommendations advised by Monaghan Co. Co. and/or the E.P.A. A landscaping programme will be implemented where deemed necessary in accordance with the Dept. of Agriculture Spec.S135.

The construction of the proposed development will involve two phases; 1) decommissioning of existing buildings, and, 2) Construction of new buildings.

During the decommissioning phase, which would extend over a period of c. 2 months all of the existing structures on site with the exception of those to be retained would be demolished and removed from the site. This process would be carried out in accordance with Monaghan Co. Co. and E.P.A. requirements and all wastes arising from this process would be disposed of and/or recovered at approved sites.

During the construction phase, which would extend over a period of about 6 - 9 months, that part of the site in the vicinity of the area on which the proposed development is to be constructed would be a typical farmyard construction site. All of the construction materials and equipment required would be transported in to the site by road. It is planned that all of the soil that would be moved during the laying on of services and site preparation works would be deposited and used within the site for land levelling and landscaping, or within the applicants adjoining landholding. The construction contractor would be required to remove any remaining construction wastes from the site for disposal or recovery in authorised sites elsewhere.

2.1.2 A description of the main characteristics of the production processes, nature and quantity of materials used.

The processes on the proposed site would be:-

- The breeding and feeding of pigs, to be ultimately transferred off the farm to specialised finishing accommodation elsewhere.

- The despatch of all animal tissue and other solid waste materials from the site for disposal or recovery at agreed/approved sites and

- The collection of all animal manure and wash waters generated within or around the new animal housing in manure tanks pending despatch to a customer farmer for use on this farmland in accordance with S.I. No 378 of 2006.

The main input materials to be used in the proposed development are water and animal feed. Water will be from the existing supply to the farm. Pig feed will be industry standard pig rations appropriate to the nutritional requirements of the pigs. The majority of the feed ingredients supplied to the farm are at present from from Paul and Vincent, and H.K.M. with the specalised diets for the young pigs supplied by Devenish Nutrition. There will also be small inputs of veterinary medicines administered in accordance with relevant regulations. Electricity would be used to power all the processes and services on the site, and to heat small areas occupied by piglets.

The proposed development, once completed, will not result in a significant increase in any of the inputs as referred to above.

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 proposed development

The expected residues and emissions that will result from the operation of the existing development are set out in the table below. The proposed development will not increase these further:-

Table 1: Waste volumes and disposal routes.

Residue/emission	**Quantity / year**	**Ultimate destination**	**Transporter**
Veterinary Waste	c. 20 kg	Sterile Technologies Irl. Ltd.	Transafe Ltd. (or other approved contractor). (See Appendix No. 7.)
Fluorescent tubes	c. 20 No.	Civic Bring Centre, or, Return to Supplier	Applicant
Aerosol cans	c. 50 Kg	Civic Bring Centre	Applicant
Dead animals	50 tonnes	College Proteins Ltd.	College Proteins Ltd. (See Appendix No. 8)
General Refuse / Packaging	300 Kgs	Monaghan County Council Landfill	Mr Binman / Applicant

Veterinary waste includes used syringes, needles and the plastic containers in which veterinary medicines and similar products (anthelmintics, antibiotics, pesticides, rodenticides, etc.) are acquired. It will be accumulated on the site pending collection by Transafe Ltd who are an appropriate authorised waste collector, or an alternative authorised waste contractor as agreed with Monaghan Co. Co. and/or the E.P.A. A copy of Transafe Ltd.'s Waste Collection Permit details are included in Attachment No 7. Veterinary waste will be removed from the site at a minimum once every six months, in line with E.P.A. requirements.

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, probably no more than 20. 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.

Packaging (paper and cardboard) derived from the outer covers of various inputs like the veterinary medicine products, and the minor feed ingredients is the only packaging waste to be disposed from the site. It is to be collected weekly by a local contractor and/or delivered by Mr. John Erskine 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 steel container on site for collection by College Proteins Ltd. at 1 - 2 week intervals for transport to their authorised rendering facility 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 Attachment No 8.

Organic Fertiliser produced in the existing facility is currently distributed to local farmers in response to their demand and for their use on their farmland. The proposed development will not increase the amount of organic fertiliser that would be produced on the farm. Local demand for pig manure is buoyant. The applicant has more customers and more demand than can be satisfied from the existing activities. The applicant is entitled to supply organic fertiliser to his customer farmers who want it and are not prohibited from using it. The use of animal manure to fertilise farmland is subject to statutory control under S.I. 378 of 2006, and all records as required by same will be maintained by the applicant.

Manure from the site would be supplied in response to customer farmers' demand and to be used in compliance with the Nitrates directive. See Appendix No. 12. The calculation of existing and expected manure production is shown in Appendix No. 6, and of the manure storage capacity which is calculated in Appendix No. 5.

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

Noise generated in the proposed development in the site would not exceed legal limits at the site boundary. Lighting of the site would be the normal for farmyard sites and would not exert influence or interference outside the site boundary. There would not be any source of significant vibration on the site. There would not be any significant dissipation of heat from the proposed development. There would be no source of radiation on the site that could exert significant influence outside the site.

Measures to prevent any significant effect of the proposed installation and the proposed activity on environmental parameters 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.

Animal manure/organic fertiliser will be supplied to local farmers who want it to fertilise their farmland.

Waste materials generated on the site will be collected and transported off the site by appropriately authorised waste contractors, for disposal or recovery or recycling in appropriately authorised installations, to be agreed with the Planning Authority and/or E.P.A., as may be required by conditions included in any subsequent grant of Planning Permission. These may be further supplemented and/or amended by conditions to be attached to any subsequent amendment to and/or revision of the I.P. C. Licence granted to this farm.

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

2.2 Description of the aspects of the environment likely to be significantly affected by the proposed development.

There will be no aspects of the environment significantly affected by this proposed development. 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 archaeological heritage. There is no known potential for any adverse issues in relation to architectural or cultural heritage.

- ***Effect on people***

Significant effects on people are not anticipated. There are no third party dwellings so close to the proposed development as to be adversely affected by, or experience significant impairment of amenity due to the proposed development. The closest dwelling(s) to the proposed development is located adjacent to the pig farm site c. 25 m away, and belongs to the applicant. The closest third party dwelling is c 200 meters away. There has been no history of any complaints at this farm with regard to a noise/odour or any other impact on neighbouring dwellings.

The proposed development is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience of other similar sites indicates that the legal limits for such emissions, 55db daytime and 45db night-time are highly unlikely to be exceeded beyond the site boundary.

There are no processes proposed which will constantly or regularly release odorous emissions from the site at nuisance levels. Fugitive odour emissions at the site will not be significant and will be limited to times at which animal manure is being removed from collection/storage tanks. In so far as is possible odour emission is to be managed so as to ensure that the- effect within the site or outside it will be minimal.

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. It is anticipated that the proposed development will help improve the characteristics of the farm.

- ***Effect on flora and fauna***

The site of the proposed and/or existing development is currently a farmyard, and the flora and fauna around the site has developed in this context. There is no special flora or fauna associated with this site. Structures and new paved surfaces will cover a significant fraction of the site and any additional landscaping will cover and so influence the flora and fauna in a significant fraction of the remainder of the site. The changes will affect such a small area that any impact will be close to zero or neutral within the local area. The site is not in or close to any NHA, SAC or SPA. It is surrounded by farmland and a public road.

It is considered that the development will not adversely impact in any way on the flora or fauna in any of the surrounding area. The proposed development of native trees associated with the any additional landscaping where required will help improve the diversity of flora (and indirectly the diversity of fauna) on the site. It is considered that the development, managed as is proposed, which will have to operate under I.P.P.C. License, animal welfare, nitrates regulations and in line with Monaghan Co. Co. and E.P.A. requirements, will have no measurable impact on either flora or fauna outside the site boundary.

- ***Effect on Soil***

The structures proposed and/or retained on the site would be/are constructed on land that is already part of a farmyard. The proposed structures will replace a large number of existing buildings. There is no significant potential for any effect on soil.

It might be argued that the 10,857.6 m^3 (See Appendix No. 6) of pig manure currently produced on the farm (containing no more that 8.7 tonnes of phosphorus (P), to be taken from the site and used by local farmers as fertiliser on their farmland might impact on their land. The farmers concerned are and will be entitled to use their farmlands for the production of crops and animals, and to fertilise the farmlands in accordance with good farming practice as specified in S.I 378 of 2006. Fertiliser nutrients (P and N) acquired from the local pig farm will not have to be imported as chemical fertiliser products from outside the state. The fertiliser nutrients in the volume of manure likely to be available for distribution from the site is small in relation to local farm requirement for chemical fertiliser products. It would contain at most 8.7 tonnes of P and 45.6 tonnes of N. It would be sufficient to supply a very modest input of fertiliser to local farmland that has a significant requirement for fertiliser.

Pig manure used by local farmers would be used for the purpose of supplying plant nutrients that the farmers would otherwise be acquiring from another source. Accordingly, the potential effect of the use of manure currently produced on the farm on land outside the site is minimal, if it exists at all.

With regard to the proposed development, no additional organic fertiliser will be produced on the farm. The additional storage capacity provided for by the proposed development will actually ensure that the existing organic fertiliser produced is used in accordance with the requirements of S.I. 378 of 2006, as it pertains to timing of, and conditions at application, as well as application amounts, thus there is potential for a positive environmental affect due to optimum management of the organic fertiliser.

- **Effect on Water**

Adverse effect on ground water from the proposed development should be nil, as there would be no discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. The volume of water needed for the farm once the proposed development has been completed will be unchanged from existing levels.

The proposed structures on the site from which dirty/contaminated water might escape to ground, (that is the underground manure tanks) are designed to be watertight and leak proof. As a precaution, leak detection drains are to be installed under the new tanks, which drains will lead to a sump at which the impact on drainage water of any potential significant leak from the tank would be detected. These inspection points will be monitored on a regular basis in line with Monaghan Co. Co. and/or E.P.A. requirements.

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 Monaghan Blackwater River. There will be no discharge of soiled water or effluent from the existing and/or proposed development to surface water and so the proposed development cannot have any significant impact on surface waters. As part of the site improvement works to be carried out the stormwater discharge system is re-vamped. Once this has been completed, one or more, stormwater discharge points will be designated. These inspection points will be inspected and monitored on a regular basis in line with Monaghan Co. Co. and/or E.P.A. requirements. Please refer to Appendix

No. 11 for the proposed inspection register. At present all stormwater from the site is channelled via a covered drain into a settlement tank prior to entering the field adjoining the site. A sample of the stormwater was taken and the results are contained in Appendix No. 18.

- ***Effect on Air***

The potential effects of the proposed and/or existing development on air are limited to the odour emissions that may be associated with pigs and pig manure stored in the manure tanks underneath the proposed houses. While it would be practically impossible to separate the potential emissions from the proposed development once completed from the emissions out of the existing development on the site, it is safe to say that odorous emissions from the developed site as whole are not likely to cause nuisance or impair amenity beyond the site boundary. The cumulative level of emissions from the site once the proposed development would be completed would be equivalent to the existing site due to the fact that there is no increase in manure production on the developed site. Odour emissions may be reduced due to the fact that the open storage tank (overground tank) on the farm may be used less due to the additional under slat storage to be provided. 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.

- ***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 proposed development. No indication of archaeological sites/features were observed as part of previous developments on this site. In addition, there is no visual remaining evidence of any archaeological feature on the site. As the proposed development is to occur on an existing site, previously excavated for the existing tanks, and due to the fact that the storage tanks underneath the proposed houses will not be any deeper than the existing tanks, there is no perceived potential for any adverse impact on archaeological features in the area.

2.3 Description of likely significant effects of the proposed development arising from:-

(i) The existence of the proposed development

The proposed development is relatively large and would add to the economic activity on the farm in the short to medium term, with positive effects in the region and the local community, particularly with regard to construction workers, supply of construction materials, and the installation of the required penning, water, feed and ventilation systems. In the long term the proposed development will not increase the economic activity on the farm once the construction is completed as there is no intensification on the farm, however it will serve to consolidate the existing levels of activity and employment.

It's impact on the landscape would be neutral following the implementation of proposals in relation to landscaping of the perimeter of the site where required, the finish to the proposed buildings, and its integration into the existing site. The impact of this proposed development could be determined to be positive due to the run down nature and appearance of the existing buildings.

The long term impact on traffic on the local road as a result of the proposed development would be insignificant and virtually imperceptible. Any short term increase in traffic would be associated with the construction of the proposed development. In particular once the proposed development would be completed, there would be no increase in traffic to and from the site.

(ii) The use of natural resources

There are no significant negative effects expected as a result of the proposed and or existing development in relation to the use of natural resources. There are no processes involved that have a high requirement for fuel energy input.

The proposed development will have a definite requirement for a small volume of water readily available from the existing water supply serving the existing site, during the construction phase, however once completed there will be no additional water used on the farm as a result of this proposed development. The function of the development is to breed and rear pigs to be fed on the site. These pigs are to be moved off site as weaners into specialised finishing accommodation elsewhere.

The main resource to be consumed would be pig feed, which is classifiable as a natural resource that is a renewable resource. In addition the amount of feed and water used in the proposed development is currently being, and would otherwise be used in the existing activity.

(iii) The emission of pollutants

Clean storm water will be discharged to the local stream via the discharge points to be designated and monitored. Such clean water is not an emission. Site management is to be focused on ensuring that all storm water collection surfaces and facilities are maintained in clean and fully functional condition at all times so that the possibility of storm water carrying significant pollution to the stream is effectively eliminated.

The emission of pollutants is to be effectively controlled and prevented by the regular removal of all solid waste materials from the site to authorised disposal/recovery sites elsewhere, and by the distribution of pig manure to local farmers who seek a supply and have a need and use for the manure. 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 and reasons for the proposed development, there will be no increase in the amount of wastes/potential pollutants produced or used on the farm, therefore the effect of the proposed development is neutral. The provision of additional manure storage capacity would be a positive impact in this regard.

(iv) The creation of nuisance

The proposed and/or existing development combined with the management routine proposed and required is not expected to create any significant nuisance.

There has been no history of any complaints, that the applicant is aware of, associated with the existing pig farm, and/or activities carried out thereon.

(v) The elimination of waste

The net increase in the volumes of waste materials to be generated as a result of this proposed development is nil. The opportunity to eliminate any of the waste products does not exist. The opportunity to reduce the volume of waste materials below, that which are generated under Good Farming Practice and which will be generated on this farm once the proposed development is completed (which is equivalent to that currently produced on the existing farm) is very small and is near zero.

For example, some pigs die prematurely in the site and none that can be saved at an economic cost, are allowed to die. Accordingly, the waste that is dead pigs 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 and veterinary medicine containers, used syringes and needles. The volumes are small and already minimised.

While the applicant can be forever conscious of the Reduce, Reuse and Recycle principle in relation to all waste, there is relatively little that can be done to effect significant further gains in this proposed development.

(vi) The forecasting methods used to assess the effects on the environment.

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

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

Taking into account that this proposed development will not increase the net scale of pig farming activities, and/or the quantity of manure production, the applicant is fully confident that the proposed development will have no adverse effect on the local environment, and as previously stated it has the potential for a positive effect with regard to the increased manure storage capacity, and the potential to reduce odour emissions from the farm with the reduced use of the overground storage tank.

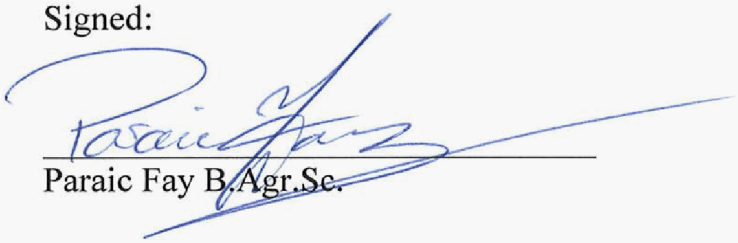
2.4 Difficulties encountered in compiling the required information

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

There were no particular difficulties encountered and there is no reason to consider that there is any serious risk of error attaching to plans and projections for the treatment of wastes to be generated in the proposed development. As stated previously this planning application and Environmental Impact Statement, relate solely and directly to the re-development of the existing site. It is proposed to demolish all of the existing farmyard structures on site with the exception of 1 No. existing pig house and 1 No. overground manure storage tank. These structures are to be replaced by 2 No. modern pig buildings and associated/ancillary structures.

While the proposed development will not result in intensification of production on site, as such, it will result in a change in the stock numbers and types on the farm. Once completed, this site would be operated as a 1,200 Sow breeding unit, rearing pigs to c. 35 kg's, i.e. there would be no finishing pigs on the farm. This proposed development would also require approval from the E.P.A. and may/will require a technical amendment to, or review of, the I.P.C. Licence for this farm.

Signed:



Paraic Fay B.Agr.Sc.

C.L.W. Environmental Planners Ltd.
The Mews,
23 Farnham St.,
Cavan Town,
Co. Cavan.

Tel: 049-4371451
Fax: 049-4371447
Email: paraicfay@eircom.net

Appendixes

Appendix No. 1	~	***Site Location Map (1:2,500)***
Appendix No. 2	~	***Site Layout (Not to scale)***
Appendix No. 3	~	***Architects Drawings (Not to scale)***
Appendix No. 4	~	***Legend for Architects Drawings***
Appendix No. 5	~	***Slurry Storage Capacity Calculation***
Appendix No. 6	~	***Pig manure volume calculation.***
Appendix No. 7	~	***Veterinary Waste Disposal Details (Incl. Waste Collection Permit)***
Appendix No. 8	~	***Animal Tissue Disposal Details***
Appendix No. 9	~	***Waste Disposal Register (Sample Sheets)***
Appendix No. 10	~	***Extract from Co. Monaghan Groundwater protection Scheme***
Appendix No. 11	~	***Storm Water Inspection Register***
Appendix No. 12	~	***Part 4 of S.I. 378 of 2006***
Appendix No. 13	~	***Landscaping Specifications***
Appendix No. 14	~	***Met data***
Appendix No. 15	~	***Extract from Soil Map of Ireland.***

Appendix No. 16 ~ ***Copy of transitional provisional provisions as provided for by S.I. 378 of 2006.***

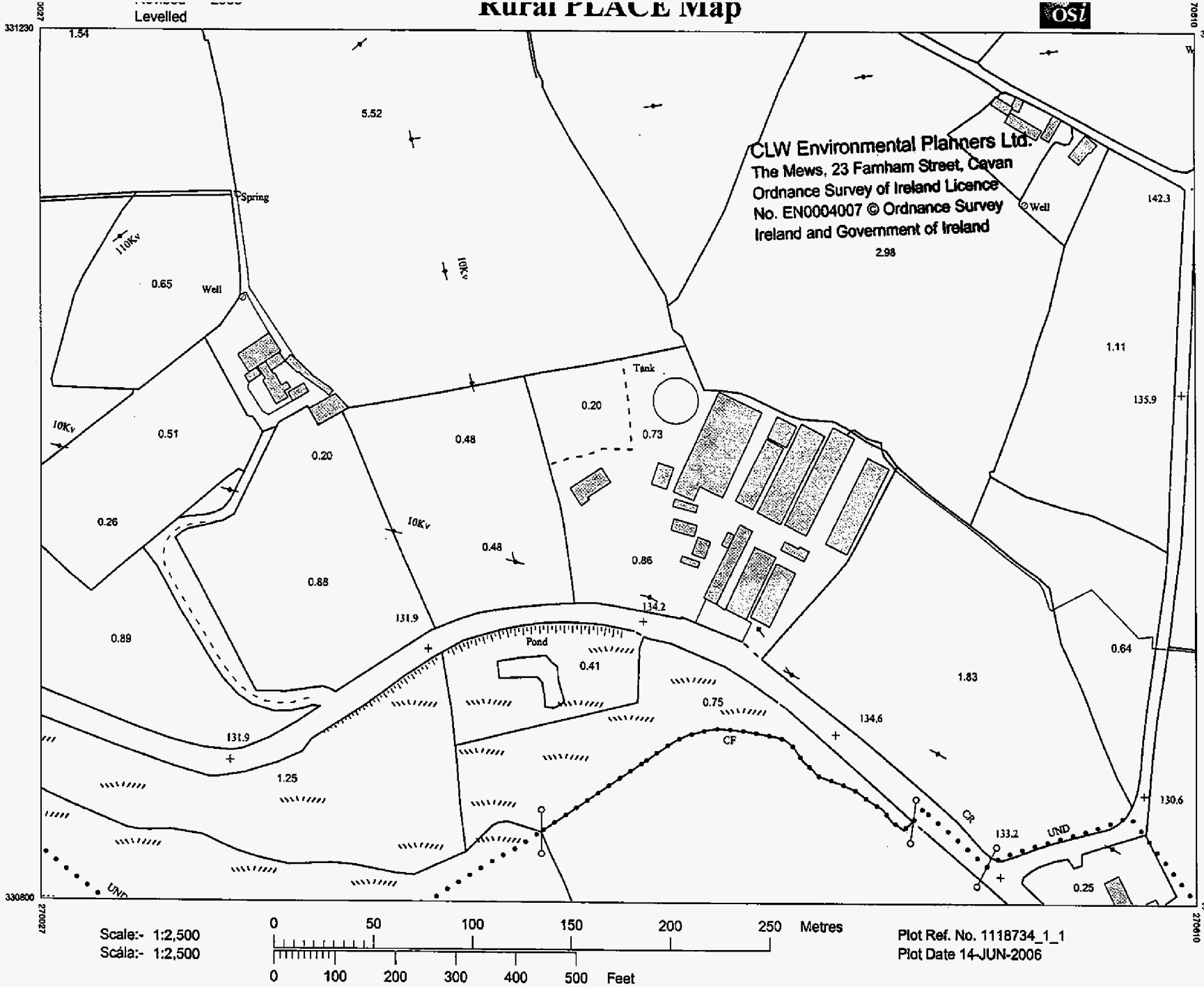
Appendix No. 17 ~ ***Copy of existing I.P.C. Licence granted to this farm.***

Appendix No. 18 ~ ***Surface Water Analysis Results***

APPENDIX NO. 1

Site Location Map (1:2,500)

Rural PLACE Map



ITM CENTRE PT. COORDS.

670254,831021

DESCRIPTION

MAP SHEETS

1:2500
1096-D 1157-B

Cantec Office Solutions
Athlone - Navan - Cavan

OSi Authorised Selling Agent

Printed and compiled by
Cantec Office Solutions, Cavan
Farnham St,
Cavan

N

Scale:- 1:2,500
Scála:- 1:2,500

0 50 100 150 200 250 Metres

0 100 200 300 400 500 Feet

Plot Ref. No. 1118734_1_1
Plot Date 14-JUN-2006

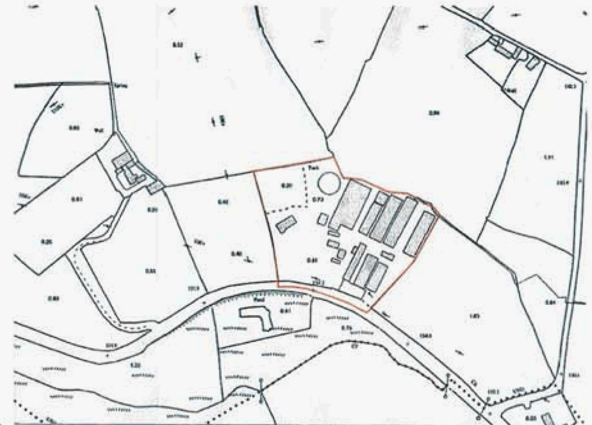
Appendix No. 2

Site Layout (Not to scale)

Note:
No Levels were Taken on Site
All Tank Depts Slurry Flows and Collection Points to Be Confirmed Priolr to Works being Carried Out.
Use Figured Dimensions Only
Do Not Scale From This Drawing
Drawing For Planning Permission Purposes Only
Not For Construction

SITE LAYOUT SCALE 1:500

Proposed New Building
Existing Building
Site Outlined in Red
Owners Land Outlined in Blue



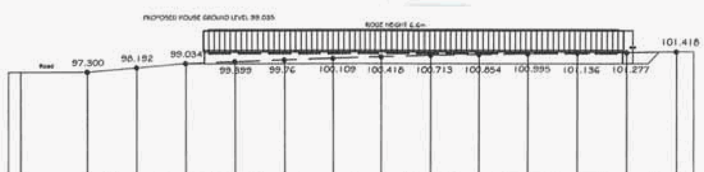
SITE LOCATION MAP SCALE 1:2500

OS MAP REF NO. 1118734_1_1

Site Outlined in Red
Site Area 18142.16 Sqm
Site Area 4.48 Acres

House 1: 85.5 m x 46.34m
Area 3962 Sqm

House 2: 99.784 m x 32 m
Area 3193 Sqm



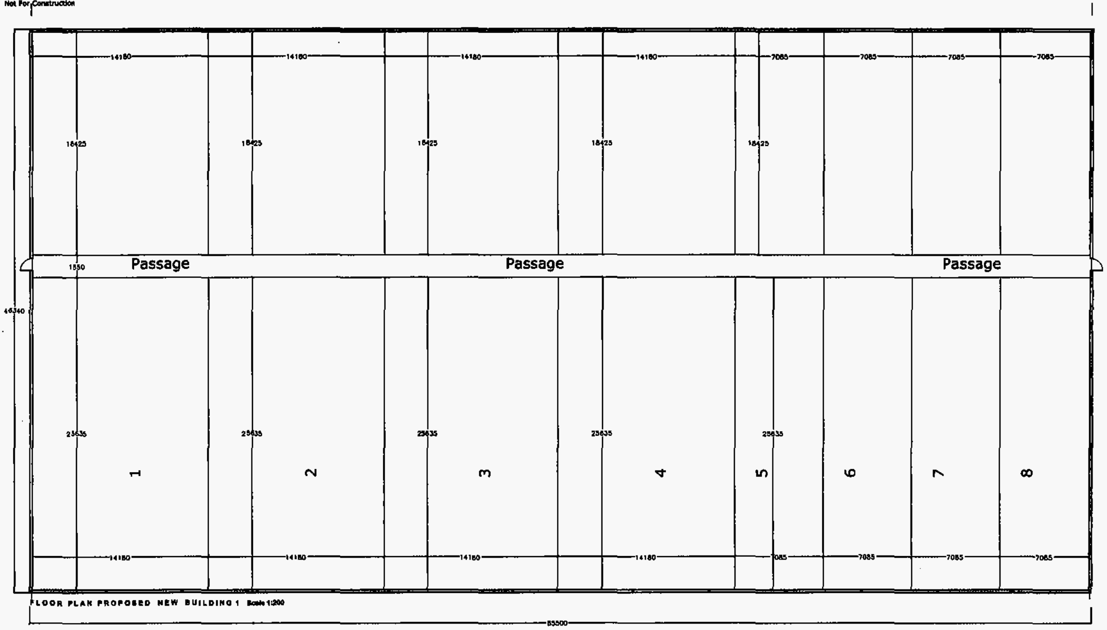
SITE SECTION A-A

DESIGN	Planning Application
PROJECT	Proposed Extension to Existing Piggery Crosses, Co Monaghan
CLIENT	Mr John Erskine
DRAWING	Site Location Map Site Plan
SCALE	1:2500 1:500 — DATE 15/08/08
DRAWN	Simon P Ward Architect
JOB NO 06-80	DWG NO 80-01

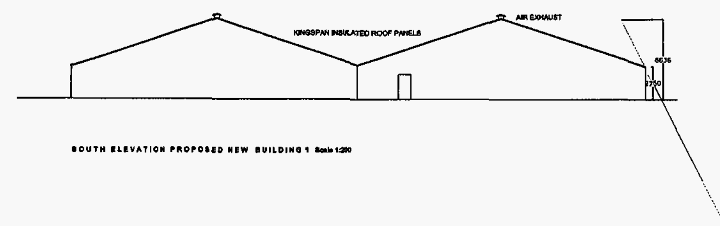
Appendix No. 3

Architects Drawings (Not to scale)

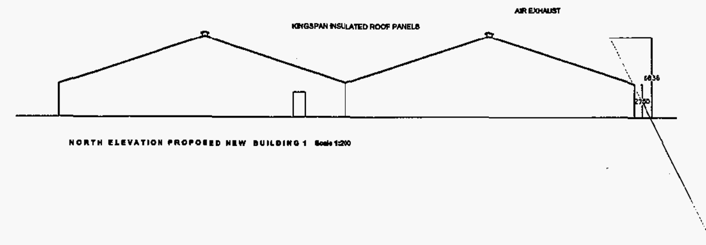
Note:
No Levels were Taken on Site
All Tank Depts Slurry Flows and Collection Points to Be Confirmed Prior to Works being Carried Out.
Use Figured Dimensions Only
Do Not Scale From This Drawing
Drawing For Planning Permission Purposes Only
Not For Construction



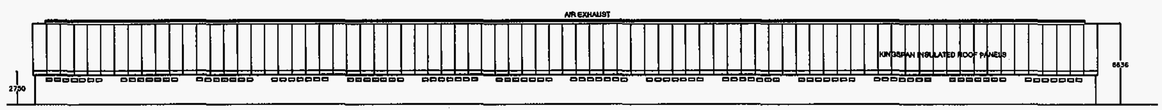
FLOOR PLAN PROPOSED NEW BUILDING 1 Scale 1:200



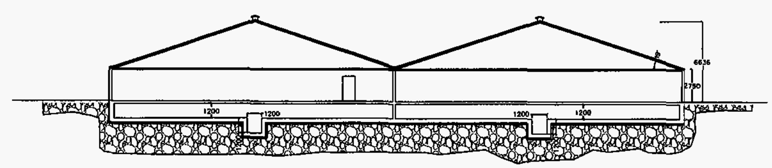
SOUTH ELEVATION PROPOSED NEW BUILDING 1 Scale 1:200



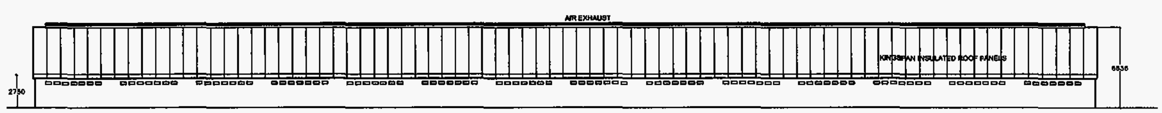
NORTH ELEVATION PROPOSED NEW BUILDING 1 Scale 1:200



WEST ELEVATION PROPOSED NEW BUILDING 1 Scale 1:200



SECTION AA PROPOSED NEW BUILDING 1 Scale 1:200



EAST ELEVATION PROPOSED NEW BUILDING 1 Scale 1:200

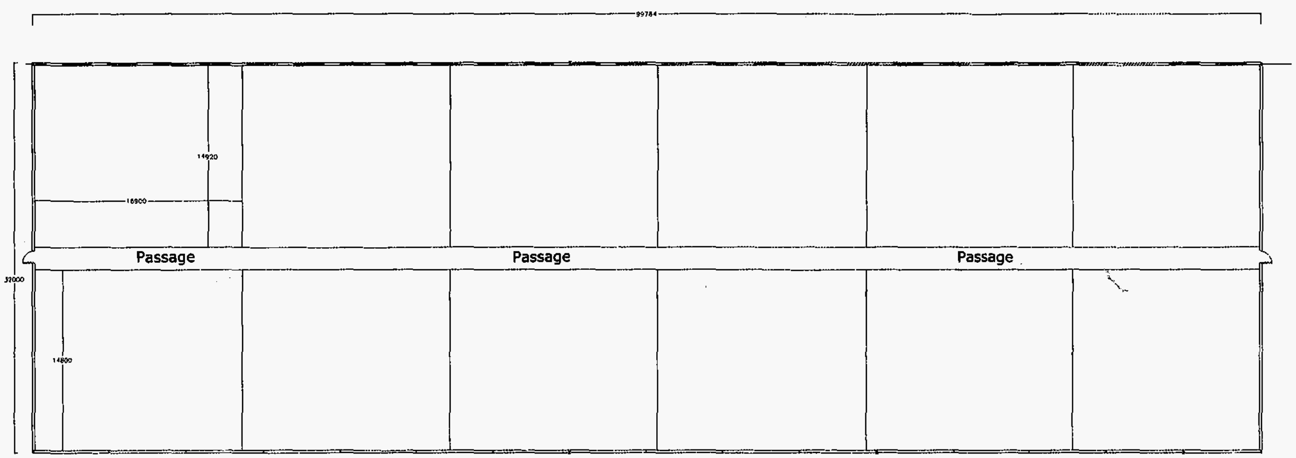
ALL TANKS, STRUCTURAL
WALLS, FOUNDATIONS &
PORTAL FRAME to
ENGINEER SPECIFICTION

House 1: 85.5 m x 46.34m
Area 3962 Sqm

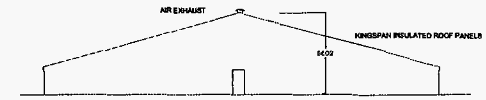
House 2: 99.784 m x 32 m
Area 3193 Sqm

SERIES	Planning Application
PROJECT	Proposed Extension to Existing Piggery Crossea, Co Monaghan
CLIENT	Mr John Erskine
DRAWING	Plans Sections Elevations House 1
SCALE	1:2500 1:500 DATE 15/08/08
DRAWN	Simon P Ward Architect Bsc Hons Arch. Dip Arch Corbeagh Cootehill Co Cavan TEL 049 555 23 26 MOB 086 207 15 16
JOB NO	08-80 DWG NO 80-02 REV -

Note:
No Levels were Taken on Site
All Tank Depts Slurry Flows and Collection Points to Be Confirmed Prioir to Works being Carried Out.
Use Figured Dimensions Only
Do Not Scale From This Drawing
Drawing For Planning Permission Purposes Only
Not For Construction



FLOOR PLAN PROPOSED NEW BUILDING 2 Scale 1:200



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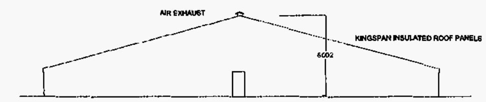

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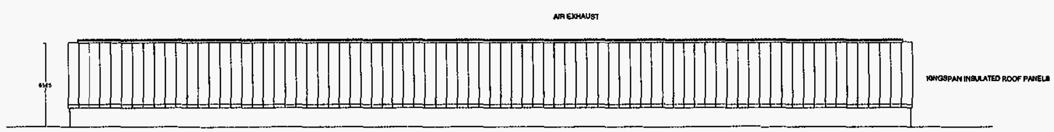

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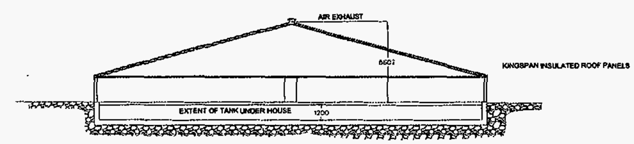
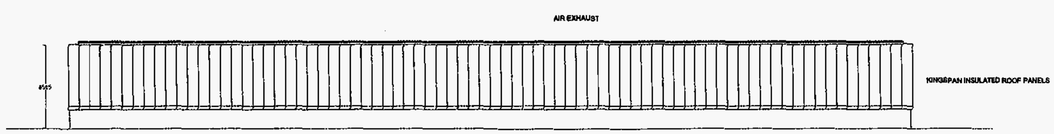


SECTION A-A PROPOSED NEW BUILDING 2 Scale 1:200



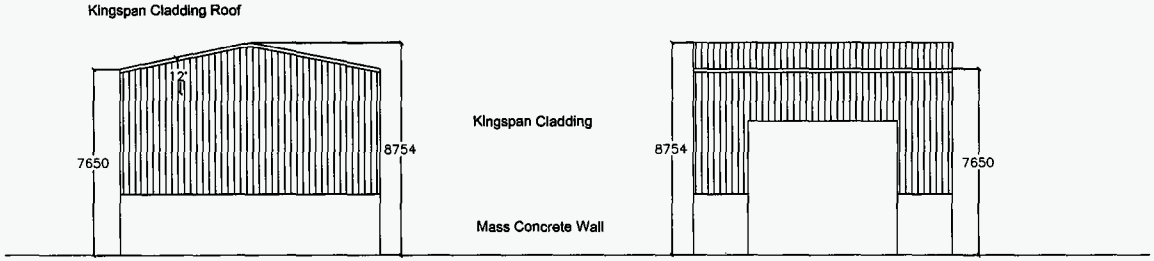
EAST ELEVATION PROPOSED NEW BUILDING 2 Scale 1:200

House 1: 85.5 m x 46.34m
Area 3962 Sqm

House 2: 99.784 m x 32 m
Area 3193 Sqm

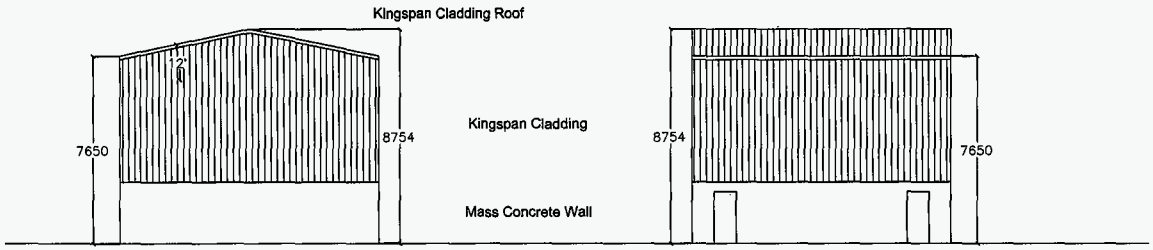
ALL TANKS, STRUCTURAL
WALLS, FOUNDATIONS &
PORTAL FRAME to
ENGENEER SPECIFICTION

SERIES	Planning Application		
PROJECT	Proposed Extension to Existing Piggery Crosses, Co Monaghan		
CLIENT	Mr John Erskine		
DRAWING	Plans Sections Elevations House 2		
SCALE	1:2500 1:500	DATE	15/06/06
DRAWN	Simon P Ward Architect		
JOB NO	06-80	DWG NO	80-03



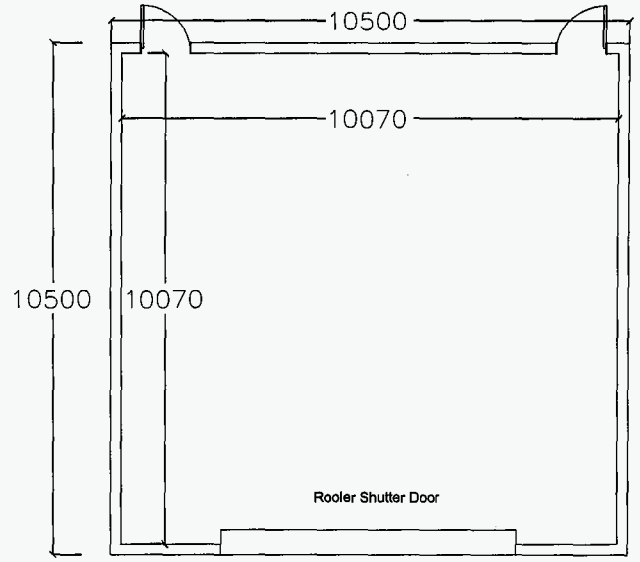
Side Elevation 1:200

Front Elevation 1:200

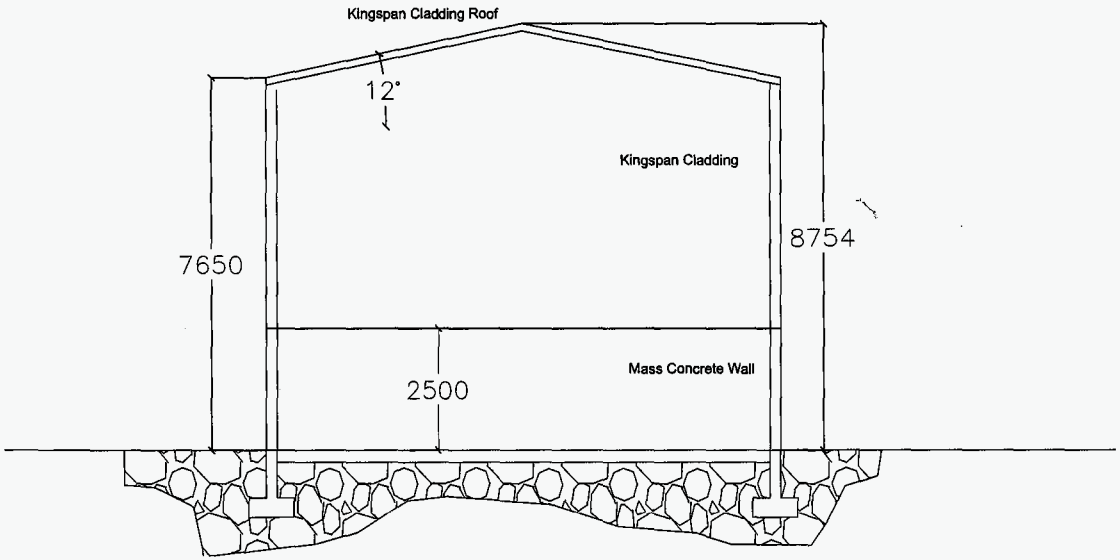


Side Elevation 1:200

Rear Elevation 1:200



Ground Floor Plan 1:100



Typical Section A-A 1:100

ALL TANKS, STRUCTURAL WALLS, FOUNDATIONS & PORTAL FRAME to ENGENEER SPECIFICTION

Meal Store

SERIES	**Planning Application**	SCALE 1:250	DATE 14/05/07
PROJECT	Proposed Extension to Existing Piggery Crosses, Co Monaghan	DRAWN	**Simon P Ward** Architect Bsc Hons Arch. Dip Arch Corbeagh Cootehill Co Cavan TEL 049 555 23 28 MOB 086 202 76 16 simonpward@gmail.com
CLIENT	Mr John Erskine		
DRAWING	Plan Section Elevations of Meal Store	JOB NO 06 - 80	DWG NO 80-04 REV -

Appendix No. 4

Legend for Architects Drawings

Legend for Architects Drawings	
House Ref. No.	Production Stage
1	Proposed Farrowing/Weaner House
2	Proposed Sow House
3	Existing Pig (gilt) House
Tank	Existing Overground storage tank

Appendix No. 5

Slurry Storage Capacity Calculation

Slurry Storage Capacity				
House Ref. No.	Gross Slurry Storage (M^3)	Overall Tank Depth	Freeboard m	Net Slurry Storage (m^3)
1 (proposed)	4,624.62	1.2	0.2	3,853.85
2 (proposed)	3,706.56	1.2	0.2	3,088.80
3	775.00	1.6	0.2	678.13
Overground Tank	1,818.00	3.6	c. 0.9 (0.3 +	1,363.50
			c. 0.6 rainfall)	
Total	*10,924.18*			*8,984.28*
Proposed Annual slurry Production =				10,857.60
Proposed Available Slurry Storage Capacity (weeks) =				43.03

Note 1: A freeboard allowance of 200m on roofed slatted tanks and 300mm (+ extraneous water) on open tanks in accordance with S.I. 378 of 2006, has been allowed.

Appendix No. 6

Pig manure volume calculation.

Calculation of the Volume of pig manure/ organic fertiliser produced on this farm/annum.

Proposed Annual Organic Fertiliser Production.				
Animal Type Proposed	**Number**	**Slurry Production/sow place Litres/week***		**Total M3**
Sows (Breeding)	1,200	174	52	***10,857.6***

**Data taken from Table No. 1 of S.I. 378 of 2006*

Existing Annual Organic Fertiliser Production.				
Animal Type Proposed	**Number**	**Slurry Production/sow place Litres/week**		**Total M3**
Sows (Integrated)	420	441	52	9,631.44
Sows (Breeding)	280	174	52	2,533.44
				12,164.88

** Data taken from Table No. 1 of S.I. 378 of 2006*

Appendix No. 7

Veterinary Waste Disposal Details (Incl. Waste Collection Permit)

Meath • Louth • Monaghan • Cavan
Better Waste Management

Waste Management (Collection Permit) Regulations, 2001

WASTE COLLECTION PERMIT

Permit Register reference Number WCP MH/2001/11C

Meath County Council being a nominated authority under Section 34(1)(aa) of the Waste Management Acts 1996 to 2003, having carried out a review of waste collection permit (WCP/MH/2001/11B), has
[*by Managers Order Ref. No.137/2005 dated 30th May, 2005*]
granted an amended waste collection permit to:

Transafe Ltd., trading as R&D Associates, and South East Health Care

herein after called the Permit Holder

of: **1a, Renmore Business Complex, Kilcoole Industrial Estate, Kilcoole, County Wicklow.**
subject to the attached schedule of conditions

This waste collection permit and attached conditions supersedes the previous waste collection permit (WCP/MH/2001/11B).

Meath County Council may at any time review, and subsequently amend the conditions of, or revoke this permit. Meath County Council shall review this permit at least once in each period of two years (or as otherwise required by regulation) after the date on which the permit was granted or last reviewed, as the case may be.

The Permit Holder is authorised by this permit to collect specified waste type(s) using vehicle(s) specified in the following local authority areas:

Cavan County Council
Louth County Council
Meath County Council
Monaghan County Council

Signed: _____
Director of Services

Date: _____

Appendix No. 8

Animal Tissue Disposal Details

TALLOWS PROTEINS MEALS

COLLEGE PROTEINS

COLLEGE ROAD, NOBBER, CO. MEATH, IRELAND.

www.collegeproteins.ie - e-mail: cpl@collegeproteins.ie

Telephone: (00353) 46 9052466 Fax: (00353) 46 9052062

NATIONAL AWARD WINNER 1993

John Erskine,
Crosses,
Monaghan,
Co. Monaghan

9th January 2007

To Whom It May Concern:

We wish to confirm that we collect and dispose of dead pigs from the above named individual on a regular basis. The dead pigs 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. 597. We pride ourselves on having a good reputation in the Rendering Industry, and we have been certified under EU Directive 1774/2002, which governs the industry.

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

Yours faithfully,

pp Caroline Carroll.
Martin Gilroy
Company Secretary

COLLEGE PROTEINS

Appendix No. 9

Waste Disposal Register (Sample Sheets)

Fluorescent Tube Disposal Records

Waste Agent: Mr. John Erskine

Waste Carrier: Mr. John Erskine

Waste Code: 200121

Destination Details: Monaghan County Council
Civic Amenity Center, or,
Returned to Supplier

Date	Amount (kg)	Date confirmation of acceptance received	Signed	Comments (To include details of any rejected consignments if applicable)

Veterinary Waste Disposal Records

Waste Agent: Transafe Ltd.

Waste Carrier: Transafe Ltd.

Waste Code: 180202

Destination Details: As per Waste Collection Permit (Enclosed)

Date	Amount (kg)	Date confirmation of acceptance received	Signed	Comments (To include details of any rejected consignments if applicable)

Animal Tissue/Carcass Disposal Records

Waste Agent: College Proteins Ltd.

Waste Carrier: College Proteins Ltd.

Waste Code: 020102

Destination Details: College Proteins Ltd.

Date	Amount (kg)	Date confirmation of acceptance received	Signed	Comments (To include details of any rejected consignments if applicable)

Appendix No. 10

Extract from Co. Monaghan Groundwater protection Scheme

COUNTY MONAGHAN
GROUNDWATER PROTECTION SCHEME

MAP 7 (N) RESOURCE PROTECTION ZONES

VULNERABILITY RATING	RESOURCE PROTECTION ZONES								
	Regionally Important Aquifers (R)			Locally Important Aquifers (L)			Poor Aquifers (P)	
	Rk	Rf	Rg	Lm	Lg	Ll	Pl	Pu
Extreme (E)	Rk/E	Rf/E	Rg/E	Lm/E	Lg/E	Ll/E	Pl/E	Pu/E
High (H)	Rk/H	Rf/H	Rg/H	Lm/H	Lg/H	Ll/H	Pl/H	Pu/H
Moderate (M)	Rk/M	Rf/M		Lm/M		Ll/M	Pl/M	Pu/M
Low (L)	Rk/L	Rf/L		Lm/L		Ll/L	Pl/L	Pu/L

Not Present in County

MONAGHAN COUNTY COUNCIL
Comhairle Chontae Mhuineacháin

Mr. Billy Moore,B.E., M.Sc., F.I.E.I.
County Engineer
County Offices, The Glen, Monaghan

Project Hydrogeologist: Melissa Swartz
Project Manager: Donal Daly
Digital Map Production: Deirdre O'Sullivan

Source Protection Areas
(see separate maps)

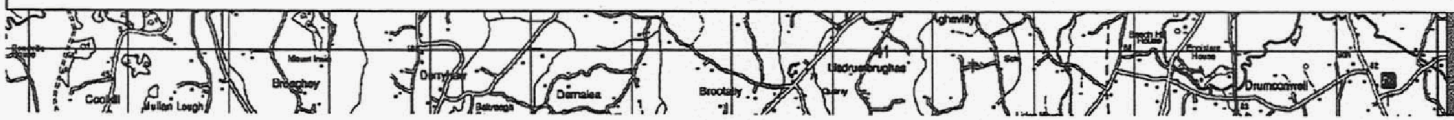
The topographic base is reproduced with the permission of the Ordnance Survey of Ireland

This **Resource Protection Zone map** is designed for general information and strategic planning usage.The boundaries are based on the available evidence and local details have been generalised to fit the map scale. Evaluation of specific sites and circumstances will normally require further and more detailed assessments and will frequently require site investigations to determine the risk to groundwater. The map is intended for use in conjunction with groundwater protection responses for potentially polluting activities, which list the degree of acceptability of these activities in each zone and describe the investigations and planning or licensing conditions that may be necessary in decision making.

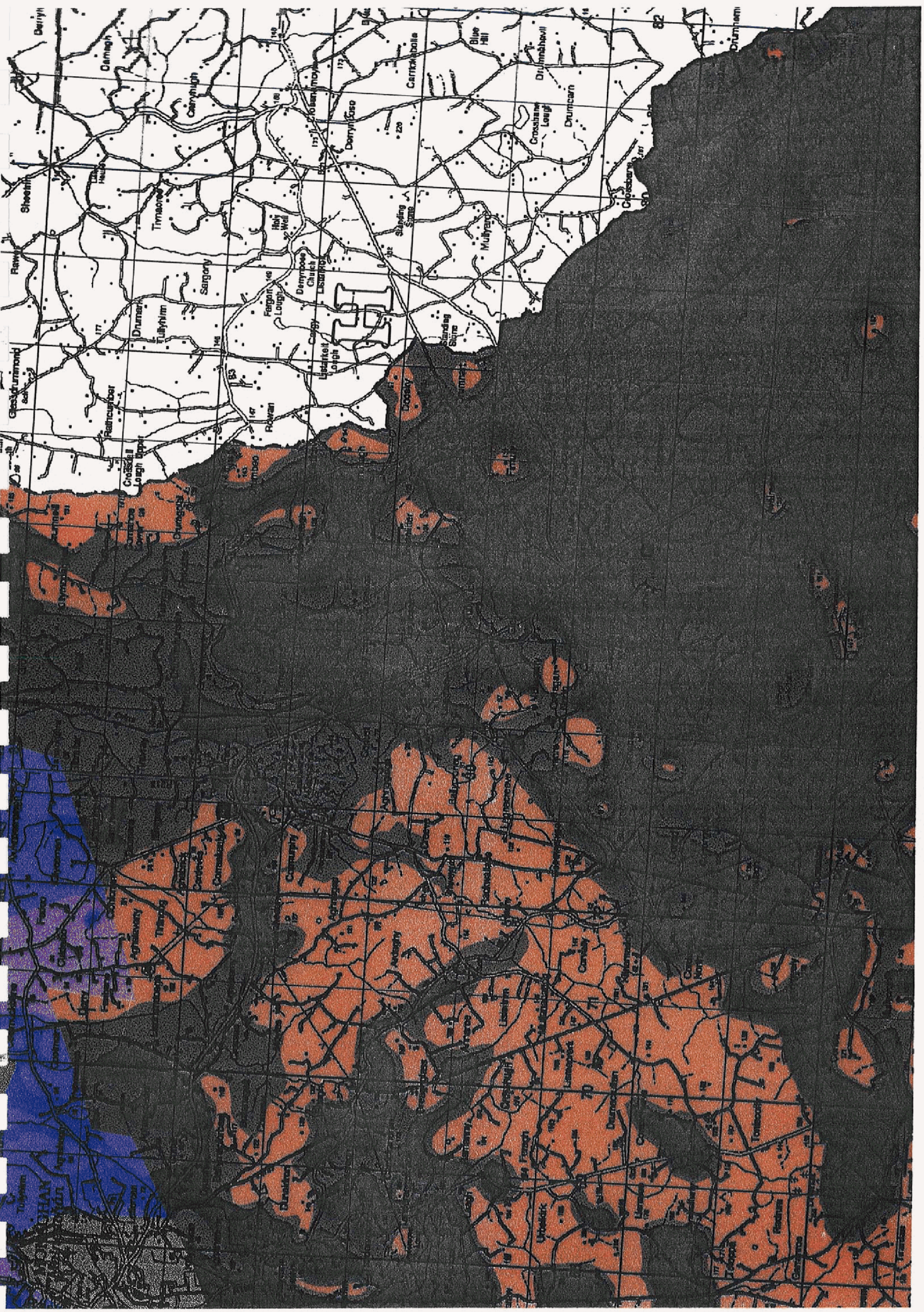
DATE	DETAILS	MAP PRODUCTION	CHECKED
Nov 01	Draft	D O'S	D D
Oct 02	Final	D O'S	D D

GEOLOGICAL SURVEY OF IRELAND
Suirbhéireacht Gheolaíochta Éireann

Groundwater Section,
Beggars Bush, Haddington Rd.,
Dublin 4



0 5 Kms
0 1 2 3 Miles


Derrylin
Dernagh
Derrygonnelly
Blue Hill
Carrickboile
Drumshanbo
Drumlaman
Derrylin
Crossbane Lough
Drumcarn
Sheemin
Tirnaseer
Holy Well
Standing Stone
Mullyard
Rawn
Sangorry
Fargon Lough
Derrynoose Church
Lisdarnish
Tullyhim
Drumer
Glasdrumman
Ballinamore
Ballyconnell
Belturbet
Cavan
Kells
Navan
Dublin

Appendix No. 11

Storm Water Inspection Register

Storm Water Emissions Monitoring Record 200?

Name: **Mr. John Erskine**
Licence Reg. No. **P0696-01**

Monitoring Point **SW - 1**

Week No.	Date	Visual	Sampling	Carried Out By	Comments
1					
2					
3					
4					
5					
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Appendix No. 12

Part 4 of S.I. 378 of 2006

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 1.5 metres of a surface watercourse.

(2) Organic fertiliser or soiled water shall not be applied to land within –

(a) subject to sub-article (5), 200m of the abstraction point of any surface watercourse, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying $100m^3$ or more of water per day or serving 500 or more persons,

(b) subject to sub-article (5), 100m of the abstraction point (other than an abstraction point specified at paragraph (a)) of any surface watercourse, borehole, spring or well used for the abstraction of water for human consumption in a water scheme supplying $10m^3$ or more of water per day or serving 50 or more persons,

(c) subject to sub-article (5), 25m of any borehole, spring or well used for the abstraction of water for human consumption other than a borehole, spring or well specified at paragraph (a) or (b),

(d) 20m of a lake shoreline,

(e) 15m of exposed cavernous or karstified limestone features (such as swallow-holes and collapse features), or

(f) subject to sub-articles (8) and (9), 5m of a surface watercourse (other than a lake or a surface watercourse specified at paragraph (a) or (b)).

(3) 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 watercourse or borehole, spring or well used for the abstraction of water for human consumption in a water scheme

supplying $10m^3$ 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 a surface watercourse (other than a lake or a surface watercourse specified at paragraph (a)).

(4) Farmyard manure shall not be held in a field at any time during the periods specified in Schedule 4 as applicable to that substance.

(5) (a) A local authority may, in the case of any particular abstraction point and following consultation with the Agency, specify an alternative distance to that specified in sub-article (2)(a), (b) or (c) where, following prior investigations, the authority is satisfied that such other distance as may be specified by the authority is appropriate for the protection of waters being abstracted at that point.

(b) A distance specified by a local authority in accordance with paragraph (a) may be described as a distance or distances from an abstraction point, a geological or other topographical feature or as an area delineated on a map or in such other way as appears appropriate to the authority.

(6) In sub-article (5), "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,

(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" (and the relevant groundwater protection responses) published in 1999 (ISBN 1-899702-22-9) or any subsequent published amendment of that document.

(7) Where a local authority specifies an alternative distance in accordance with sub-article (5) the authority shall, as soon as may be –

(a) notify the affected landowners and the Department of Agriculture and Food of the distance so specified,

(b) send to the Agency a summary of the report on the prior investigations carried for the purpose and the reasons for specifying the alternative distance, and

(c) make an entry in the register maintained in accordance with Article 30(6).

(8) The distance of 5m specified in sub-article (2)(f) may be reduced to 3m where one of the following conditions is met -

(a) the watercourse is an open drain, or

(b) the area of land adjacent to the watercourse is a narrow parcel of land not exceeding one hectare in area and not more than 50m in width.

(9) Notwithstanding sub-articles (2)(f) and (8), organic fertiliser or soiled water shall not be applied to land within 10m of a surface watercourse where the land has an average incline greater than 10% towards the watercourse.

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 –

(a) the land is waterlogged;

(b) the land is flooded or likely to flood;

(c) the land is snow-covered or frozen;

(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 come into effect on 1 August 2006 in relation to the application to land of a chemical fertiliser.

(3) Sub-article (1) shall come into effect on 1 August 2006 in relation to the application to land of organic fertiliser –

(a) which did not arise on the holding, or

(b) which arose on the holding in the case of a holding on which there is in place on 1 August 2006 storage facilities in compliance with the storage capacity requirements prescribed by Articles 8 to 13.

(4) In the case of a holding on which there is not in place on 1 August 2006 storage facilities in compliance with the storage capacity requirements prescribed by Articles 8 to 13, sub-article (1) shall, subject to sub-article (5), come into effect in relation to the application to land of organic fertiliser –

(a) in the case of a pig production holding, on 31 December 2006 or the day on which such storage facilities are put in place on that holding, whichever day first occurs, and

(b) in the case of any other holding, on 31 December 2008 or the day on which such storage facilities are put in place on that holding whichever day first occurs.

(5) Notwithstanding sub-article (4), the application of organic fertiliser to land during the months of November and December is prohibited with effect from 1 August 2006.

(6) Sub-articles (1) and (5) shall not apply in relation to the application to land of -

(a) soiled water, or

(b) chemical fertilisers to meet the crop requirements of Autumn-planted cabbage or of crops grown under permanent cover.

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.

Ploughing and the use of non-selective herbicides

21. (1) Where arable land is ploughed between 1 July and 15 January the necessary measures shall be taken to provide for emergence, within 6 weeks of the ploughing, of green cover from a sown crop.

(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 15 January the necessary measures shall be taken to provide for the emergence of green cover within 6 weeks of the application 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 15 January unless a crop is sown within two weeks of its removal.

Appendix No. 13

Landscaping Specifications

DEPARTMENT OF AGRICULTURE, FOOD & RURAL DEVELOPMENT

Farm Development Service

S135

Minimum Specification for Screening Belts and Shelter Belts for Farmyards and Farmbuildings

April 1995

This specification describes the installation and maintenance of trees to screen or shelter a single farm building, or collection of buildings. **Screening** belts refer to rows or groups of trees planted to hide obtrusive buildings, or to soften their impact, particularly in scenic landscapes. **Shelter** belts may also screen buildings, but have the particular purpose of moderating strong winds around buildings and farmyards.

1. Design and Layout of Screening Belts

Factors which influence the layout and the design of a **screening belt** are:-

- The direction from which obtrusive buildings have the greatest impact. This would frequently be the public road, but could also be a scenic viewing place, a neighbouring house or houses, or even the applicant's farmhouse.
- The fact that buildings are on a height or on a ridge making them highly visible from a distance.
- The likely future development of the farmyard:
  Trees should not block any obvious or useful sites for possible new buildings.
- Possible root damage to structures. Trees should be set about 20 metres or more from buildings, yards, concrete tanks, silos, etc.
- Buildings on adjoining property. No belts of trees should be planted within 30 metres of neighbouring dwellings or farm buildings.

When trying to soften the impact of obtrusive buildings it is not necessary to surround buildings or yards completely. One or two stands of reasonably tall trees can entirely change the appearance of a farmyard, and integrate it into the landscape, even if some buildings remain visible.

A single row of trees is not an effective screen, and usually looks unnatural. Two to three rows of trees should normally be planted, though informal groups of trees can be just as effective. Very long straight lines of trees should, where possible, be avoided by introducing curves or breaks.

2. Design and Layout of Shelter Belts

Factors which influence the design and layout of a **shelter belt** are:-

- The direction of prevailing winds, and of winds which are particularly strong because of "funnelling" along valleys or around hills.
- The position of buildings or structures which particularly need shelter (calf or sheep houses, animal yards, etc.)
- Future development of the farm, and distance from existing buildings or neighbouring buildings, as above.

Shelter belts work best when they allow about 50% of the wind to pass through. The wind should be slowed rather than blocked as for instance, by Lawson Cypresses which simply cause turbulence. A mixture of species including spruces, pines, firs, and broad leaves will provide a naturally porous belt, providing good shelter.

Shelter belts should have about five or six rows of trees, though ten or more rows may be necessary where winds are very strongly funnelled. To be effective, shelter belts should extend in both directions well beyond the line of the structure(s) they are protecting.

Unless protection from strong south winds is essential, the area directly to the south of the building(s) should not be planted to ensure adequate sun and light.

3. Site Preparation

The site should be cleared of any scrub and furze and graded to blend with the immediate surroundings. As young trees establish more easily with some initial protection, all existing barriers such as hedges and stone walls should be retained, where possible.

4. What to Plant

The choice of species will be based on the following considerations:-

1. The suitability of different species for physical conditions on the site, i.e. -soil type, drainage, exposure etc.
2. The suitability of different species for the landscape. In general deciduous trees are more appropriate than most evergreens. Very narrow tall evergreens (Leyland and Lawson Cypresses) should not be used. They draw attention to buildings and look alien in the Irish landscape. The best indicator of the most suitable species for an area are the trees already grown there successfully and look well (see appendix attached).
3. For both screening and shelter a mixture of species is recommended. Generally one species should predominate at about, 60-70% of planting, with one or two other species, grouped irregularly, providing the remainder. A mixture of too many species should be avoided, as should the use of different species placed in a regular alternating pattern in a long row.

5. When to Plant

Planting is carried out when the trees are dormant from October to April. Autumn planting is preferred for deciduous trees, while Spring planting March/April is best for evergreens.

6. Handling and Planting

Ensure that all preparatory work is completed before the trees are delivered. Tree roots must never be allowed dry out. Weather permitting, planting should commence immediately the trees arrive.

7. Pit Planting

This method is used on dry mineral soils. The young tree is inserted in a hole 150mm x 150mm x 150mm to the depth it was in the nursery soil. The roots should be teased prior to careful back-filling.

8. Ploughing and Mounting

Here planting is done by making a slit on the inverted sod/ribbon and inserting the tree so that the roots are between the two grass layers.

9. Spacing

Trees are spaced at two metres apart each way. This works out at 2,500 trees per hectare.

10. Fertilizer

Areas enclosed as fields and previously used for intensive farming normally require no further fertilizer. Other poorer areas may require a dressing of 400 kg/ha of rock phosphate. Some midland sites may require 200kg/ha of potash. A top dressing of nitrogen is beneficial to sitka spruce as growth rate is slow.

11. Fencing

All stock must be completely excluded from the new plantings. Fences must meet FDS standards specification S148 Part I. They should be kept close to the edge of the plantation to reduce their obtrusive impact on the landscape. In order to protect the young trees the fence should consist of a minimum of three strands of barbed wire plus one metre high sheep wire.

12. Maintenance of Screening Belt

It is essential to control growth of grass and weeds around the young trees during the first four years. Unchecked vegetation growth will result in poor tree establishment. Grass and weeds can be controlled by treading or by the use of suitable herbicides. Failures should be replaced each year.

Note: Herbicides shall not be used in close proximity to watercourses, field margins or wildlife habitats.

13. Minimum and Maximum Planting Areas

This specification refers **only** to the screening or shelter of farm buildings and farmyards.

The **minimum** area of planting for which this specification shall be used is 0.2ha. The **maximum** area that will be grant-aided is 2ha.

Shelter belts to protect herds or crops, or other forestry plantings on the farm, come under the responsibility of the Forest Service of this Department.

General Guide to Tree Species for Irish Farm Conditions

NATIVE BROADLEAVES

SPECIES	OPTIMUM SITE	CHARACTERISTICS	TIMBER QUALITY	REMARKS
Pedunculate Oak *Quercus Robur*	Well-aerated deep fertile loams. Will do well on heavier soils	Slow growing, long lived tree once the climax vegetation over most of the country	Very high quality timber suitable for many uses. Subject to timber defects when grown on adverse soils	Major forest species. One of our few native broadleaved trees. Very high amenity value
Sessile Oak *Quercus Petraea*	Tolerates less rich and lighter textured soils than *Q. robur*	Oaks will not produce good timber on excessively drained or sandy soils	Reputedly slightly better timber than *Q. robur* but site should determine choice	Major forest species. Native to Ireland. Now designated as Irish national tree
Ash *Fraxinus Excelsior*	A very exacting species demanding good soil conditions, preferably sheltered, moist well-drained fertile loam soils	A fast growing species regarded as not being suitable for large scale planting	Very high quality timber. Suitable for veneer, furniture and implement handles. High shock resistance	Major forest species. Native tree. Its wide distribution belies the difficulty in producing good quality timber
Wild Cherry *Prunus Avium*	Fertile deep well-drained mineral soils. Preference for slightly acid soils but will do well on deep loams over limestone	Fast growing, light demanding, requiring considerable space. The only commercial broadleaved tree with attractive blossoms	Produces one of the most valuable furniture and veneer timbers with a reddish brown sheen. Also used for quality turnery products	Major forest species. Native tree. High quality timber production requires good silvicultural management. A very good farm forestry tree. May suffer from bacterial canker and aphid attack
Alder *Alnus spp*	Common alder is a very hardy accommodating species suitable for wet sites. Good wildlife species. Grey and Italian alders will tolerate and grow well on drier sites. Italian alder is has a preference for more alkaline sites	Fast growing nitrogen fixing tree. Suitable broadleaf for even the wettest sites	Durable general purpose timber with a course texture. Less used in recent times	Minor forest species. Common Alder is a native tree. Coppices freely and can be used in mixtures on very infertile sites. Valuable shelter tree
Birch *Betula spp*	Pioneer species suited to very acid soils and peats	Fast growing, hardy species, withstands exposure and frost well. Useful as a nurse crop in mixtures but must be kept under control or it will smother a slower growing tree species	Not regarded as a timber tree in Ireland. Is used for pulp in Scandinavia	Minor forest species. Native tree. Young trees coppice freely. May be used as a soil improver. Can be mixed into shelterbelts
Willow *Salis spp*	Useful species for wet sites and streamsides	Fast growing useful for conservation and amenity but rarely for timber production. Willow can be used in a variety of ways as a shelterbelt system	Willow rods are regularly used for basket-making and decorative craftwork	Minor forest species. Native tree. Willow is currently being intensively studies as a suitable species for Short Rotation Forestry (Biomass) as an energy source
Whitebeam *Sorbus Aria*	Most fertile mineral soils	Attractive amenity tree also suitable for shelter	Not a timber tree	Minor forest species. Native tree. Tolerant of exposed and coastal sites
Rowan *Sorbus Aucuparia*	Suitable for lowland and hill acidic sites. Will tolerate even alkaline sites	Hardy tree suitable for exposed sites. Widely used amenity tree	Not a timber tree	Minor forest species. Native tree. Offers good support for wildlife

NON-NATIVE BROADLEAVES

SPECIES	OPTIMUM SITE	CHARACTERISTICS	TIMBER QUALITY	REMARKS
Beech *Fagus Sylvatica*	Well drained, loamy, fertile soils with a preference for soils derived mainly from limestone	Tolerant of shade when young. Creates dense shade and suppresses ground vegetation as it reaches maturity	Excellent timber. Wide range of uses including veneer, furniture, flooring and panelling	Major forest species. Non-native tree. Benefits from a nurse on exposed sites. Useful for under-planting. Grey squirrels can be very destructive particularly to young beech
Sycamore *Acer Pseudoplatanus*	Prefers a moderately fertile free draining soil. Tolerant of calcareous soils	Fast growing tree that seeds easily. Withstands exposure and smoke pollution very well	Tough, durable, white timber with a range of uses. Figured sycamore is much sought after for veneer and furniture manufacture	Major forest species. Non-native tree. Grey squirrels can be very harmful. A windfirm tree. Rich in wildlife value. Valuable for shelter
Poplars *Populus* Hybrid clones	Very exacting species requiring deep, well drained moderately fertile sites	Very fast growing, light demanding tree. Some species susceptible to bacterial canker, select disease resistant clones only	Light hardwood timber with many uses. Suitable for veneer, furniture, joinery, plywood, palletwood and fruit boxes	Potentially major forest species. Non-native tree. Offers great prospects as Short Rotation Forestry species for pulpwood, paper and particle board
Red Oak *Quercus Rubra*	Grows well on poor sandy soils	A fast growing tree, less suited to heavy soils	Yields good pale reddish brown timber, straight grained and easy to cleave but not quite so strong as Q.robur	Minor forest species. Non-native tree. High amenity because of its red and russet colours in the autumn
Horse Chestnut *Aesculus Hippocastanum*	Thrives on all except waterlogged sites but has a preference for fertile soils	An excellent amenity tree used mainly for avenues or as a specimen tree	Timber is soft, weak and of limited use	Minor forest species. Non-native tree
Walnut *Juglans spp*	Deep, well drained, loam textured, moderately fertile soil. Suitable for well sheltered sites with a southerly aspect	J. nigra grows somewhat faster than J. regia but timber may not be as highly figured. Worth pruning to give a clean stem	Strong, tough elastic, high value timber. Valuable decorative timber much used for furniture and veneer	Potentially major forest species. Non-native tree. Abnormal growths called "burr walnut" are much sought after for veneer, an example of diseased or malformed wood being more valuable than healthy timber
Lime *Tilia spp*	Grows on a wide range of sites, but prefers moist fertile limestone soils	Relatively fast growing. Suitable for planting as an amenity tree. Attracts swarms of aphids in summertime causing sticky "honeydew" to cover foliage that drips off to ground vegetation	A very soft, light, white or yellow timber of limited use, although can be used for turnery and wood carving	Minor forest species. Non-native tree. Tree flowers are strongly scented and a great attraction for many insects and a rich source of nectar for bees
Norway Maple *Acer Platanoides*	Prefers a deep, moist, alkaline soil. Tolerates less fertile and drier sites than sycamore. Avoid exposed sites and frost hollows	Fast growing tree when young. An attractive amenity tree. Greenish yellow flower makes a beautiful sight in early spring. Brilliant red, green and gold coloured leaves in the autumn	Same as sycamore and used for similar purposes, but slightly inferior and not as attractively grained	Minor forest species. Non-native tree. Grey squirrel can be very damaging

CONIFERS

SPECIES	OPTIMUM SITE	CHARACTERISTICS	TIMBER QUALITY	REMARKS
Silka Spruce *Picea Sitchensis*	Prefers wet mineral soils and peats with previous agricultural use. Well suited to high rainfall areas. quite tolerant of exposed sites	Very fast growing tree. Avoid low rainfall areas, very dry and frost prone sites. Do not plant in single rows for shelter	Reasonably valuable whitewood. General-purpose timber known as "white deal". Used widely in the general building and construction industry	Major forest species. Non-native tree. An excellent pulpwood tree for paper, fibre and particle-board industries
Norway Spruce *Picea Abies*	Prefers less acid mineral soils and peats	Not as fast growing or as tolerant of poor sites and exposure as sikta. More suitable for planting in hollows than sikta, being more resistant to frost damage	Somewhat superior to sitka making it also suitable for joinery	Major forest species. Non-native tree. Good drainage is important to avoid windthrow. Poor wildlife tree because of its very dense shade. Suitable for shelter
Douglas Fir *Pseudotsuga Menziesii*	Prefers a moist deep well drained soil of moderate fertility	A fast grower on suitable sites. Ideally suited to sheltered valley slopes. Dislikes waterlogged and shallow soils	An excellent timber of good strength and quality, sometimes referred to as "Oregon pine" it is used for building, flooring, joinery and other uses. Much in demand for transmission poles	Major forest species. Non-native tree. Delayed thinning of crop may lead to windthrow. Poor wildlife value
Lodgepole Pine *Pinus Contorta*	Grows on the poorest of mineral and peat soils	A fast growing pioneering species. Withstands exposure better than most other species. Up to recent times was widely planted on even the most difficult of sites	A general-purpose timber, suitable for building, joinery and other uses	Minor forest species now. Non-native tree. Suffers greatly from "basal sweep" reducing the quality of the log. One of the best shelter tree species
Larch *Larix spp*	European larch prefers moist, well drained, moderately fertile loams while both Japanese and hybrid larch will tolerate a wider range of sites with a preference for high rainfall areas	Larches are strong, light demanding, deciduous conifers. First generation hybrid is normally faster growing than Japanese and both are faster than European	All larches produce dense valuable commercial timber which is both heavier and stronger than most other softwoods	Major forest species. Non-native tree. Larches have a high amenity and wildlife value. Produces light shade allowing ground vegetation
Scots Pine *Pinus Sylvestris*	Thrives on light textured or sandy soils. Tolerant of acid conditions. Avoid poorly drained or alkaline soils and exposure to coastal winds	A strong, light demanding slow growing tree. Can be used as a nurse species. Unsuitable for high elevations or shelter-belting	Good general-purpose softwood timber referred to as "red deal" in the trade. Suitable for construction, flooring, joinery and other uses	Major forest species. Once native but died out, now comes from imported sources. Regarded as the best conifer for both amenity and wildlife. Attracts insects, birds and red squirrels

CONIFERS

SPECIES	OPTIMUM SITE	CHARACTERISTICS	TIMBER QUALITY	REMARKS
Monterey Pine *Pinus Radiata*	Light to medium textured free draining loam soils. Can be used on infertile sandy soils. Not frost hardy	Very fast growing tree but often of poor coarse branched form. Requires careful attention to seed selection preferably from new Zealand. Early and heavy pruning helps to produce a worthwhile crop	Not much known about quality of Irish grown timber. Widely used general-purpose timber in southern hemisphere, New Zealand, Australia and Chile	Minor forest species. Non-native tree. A species with potential if quality seed stock can be produced. Suitable for shelterbelts in coastal areas
Western Red Cedar *Thuja Plicata*	Requires deep free draining fertile soil. Good on alkaline soils. Avoid poor or very acid soils and exposed sites	Shade tolerant moderately fast growing tree. Useful for under-planting	Produces a lightweight timber of moderate strength. Very durable in outdoor situations, suitable for greenhouses, decking and cladding	Minor forest species. Non-native tree. Regarded as good estate tree suitable for screens, mixtures and game cover
Western Hemlock *Tsuga Heterophylla*	Can tolerate acid mineral soils and the better peats. Suitable for low rainfall areas. Avoid planting on sites where previous conifer crop suffered from butt rots	Moderate growth rates. A strong shade bearer and excellent for under-planting. Probably best established under some shade	Good durable timber suitable for quality building purposes	Minor forest species. Non-native tree which has potential for greater use
Noble Fir *Abies Noblis*	Prefers well-drained mineral soils. Tolerates moderately acid soils and is less frost tender than other firs. Has a wide pH tolerance	A fast growing tree unsuitable for very poor and dry sites. Christmas tree production may require somewhat less fertile soils	Timber may be (unfairly) regarded a being of inferior quality. Now mostly grown for Christmas tree production and foliage	Minor forest species now developing multiple uses. Non-native tree. When grown for Christmas tree production need to be well managed to produce a compact well furnished tree
Corsican Pine *Pinus Nigra var. Maritima*	Wide range of soils from sands to heavy clays. Suitable for coastal areas	Moderate growth rates but a good tree for difficult areas such as exposed areas or sandy soil	Similar to scots pine but not quite as good	Minor forest species. Non-native tree. More resistant to smoke pollution than most conifers. Suitable shelter tree
Cupressus like species *Cupressus* *Chamaecyparis* *Cupressocyparis*	Tolerate a wide range of soils except very acid soils and raw peats	Moderate to fast growth rates but very poor stem form or coarse branching In most cases	General purpose softwood uses	Minor forest species. Non-native tree. Macrocarpa suitable for shelter in coastal areas. **Leyland and Lawson although widely used for shelter-belting and screening are in most cases in-appropriate and an intrusion in the landscape**

Appendix No. 14

Met data

CLONES

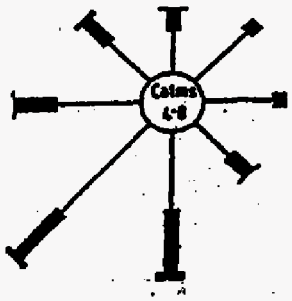
monthly and annual mean and extreme values
1961-1990

lat. 54° 11' N
long 7° 14' W
height 89 metres above mean sea level

TEMPERATURE (degrees Celsius)	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	year
mean daily max.	6.7	7.1	9.2	11.6	14.5	17.2	18.6	18.3	16.0	13.1	8.9	7.4	12.4
mean daily min.	1.3	1.3	2.1	3.4	5.7	8.6	10.4	10.1	8.3	6.5	2.9	2.2	5.2
mean	4.0	4.2	5.7	7.5	10.1	12.9	14.5	14.2	12.1	9.8	5.9	4.8	8.8
absolute max.	13.1	14.0	20.8	21.9	25.4	28.1	30.5	27.5	23.5	22.1	16.2	14.8	30.5
absolute min.	-12.4	-9.0	-9.8	-4.2	-3.7	0.5	4.1	1.5	-0.2	-3.0	-6.6	-10.4	-12.4
mean no. of days with air frost	10.4	9.2	6.8	3.3	0.8	0.0	0.0	0.0	0.0	0.8	6.5	8.6	46.1
mean no. of days with ground frost	16.7	14.9	13.4	11.5	6.3	1.5	0.2	0.6	2.1	4.4	12.9	14.3	98.9
RELATIVE HUMIDITY (%)													
mean at 0900UTC	90	89	87	82	78	79	82	85	88	90	91	91	86
mean at 1500UTC	85	78	73	68	67	69	70	72	75	79	83	86	75
SUNSHINE (hours)													
mean daily duration	1.41	2.08	3.03	4.52	5.26	4.91	4.28	4.07	3.32	2.44	1.79	1.13	3.19
greatest daily duration	7.5	9.5	11.3	13.4	15.3	16.0	15.7	13.5	11.7	9.3	8.5	6.7	16.0
mean no. of days with no sun	13	8	6	4	2	2	3	3	5	7	10	14	77
RAINFALL (mm)													
mean monthly total	90.7	67.5	77.2	56.4	67.4	67.7	60.4	85.0	89.1	96.7	85.5	90.6	928.4
greatest daily total	27.1	27.1	33.5	24.9	28.9	30.4	37.5	45.6	27.6	76.8	34.8	35.1	76.8
mean no. of days with >= 0.2mm	21	16	19	16	17	17	17	19	18	20	19	20	218
mean no. of days with >= 1.0mm	16	12	14	12	13	12	12	14	14	15	14	15	164
mean no. of days with >= 5.0mm	7	5	6	4	5	5	4	6	6	6	6	7	66
WIND (knots)													
mean monthly speed	9.8	9.6	10.1	8.5	8.0	7.2	6.9	6.9	7.5	8.5	8.6	9.4	8.4
max. gust	83	81	78	63	60	57	59	55	87	68	71	75	87
max. mean 10-minute speed	54	51	46	40	35	36	32	37	50	40	42	47	54
mean no. of days with gales	1.2	0.8	0.9	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.3	0.5	4.8
WEATHER (mean no. of days with...)													
snow or sleet	7.1	6.4	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	4.7	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	16.5
thunder	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

Climatological data for CLONES (Co.Monaghan) 54°11' N 7°14' W 87m. above MSL

PERIOD 1951-1980		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
TEMPERATURE														
Mean Daily	Max	6.5	7.0	9.1	11.7	14.6	17.2	18.2	18.1	16.0	13.2	9.1	7.5	12.4
	Min	0.8	0.9	2.1	3.6	6.1	8.7	10.5	10.1	8.6	6.6	3.0	2.0	5.3
	Mean	3.7	4.0	5.6	7.7	10.4	13.0	14.4	14.1	12.3	9.9	6.1	4.8	8.9
Extreme	Max	13.1	13.5	20.6	21.9	24.6	28.1	27.5	28.8	25.4	22.1	15.6	13.6	28.8
	Min	-11.2	-9.9	-9.8	-4.2	-3.7	0.5	4.1	1.5	-0.9	-3.4	-7.0	-10.4	-11.2
RELATIVE HUMIDITY														
Average % at *(GMT)*	9h	91	89	87	82	79	79	82	86	89	90	91	91	86
	15h	85	78	72	68	67	70	71	72	75	78	83	86	75
SUNSHINE														
Mean Daily Duration		1.55	2.22	3.13	4.67	5.47	5.22	4.02	4.08	3.27	2.44	1.78	1.16	3.25
% of Possible		20	23	27	34	35	31	25	28	26	23	21	16	26
Greatest Daily Duration		7.8	9.5	11.3	13.6	15.4	16.0	15.7	13.5	11.7	9.3	8.2	6.7	16.0
Mean days with no sun		13	8	7	3	2	3	3	3	4	8	11	13	76
RAINFALL														
Mean Monthly Amount		88	66	62	53	65	69	72	86	85	88	88	96	917
Greatest Daily Amount		34.0	27.3	22.2	17.4	25.0	37.9	40.5	64.3	25.9	40.4	35.0	32.7	64.3
Mean days with ≥ 0.2mm		20	16	17	17	17	17	18	19	19	19	19	21	219
Mean days with ≥ 1.0mm		15	12	12	12	13	13	13	14	15	14	14	16	162
Mean days with ≥ 5.0mm		7	5	6	4	5	4	4	5	7	6	7	6	66
WIND														
Mean Monthly Speed		9.8	9.3	10.1	9.1	8.4	7.6	7.3	6.9	7.8	8.8	9.2	9.6	8.7
Highest Gust		83	81	73	69	60	62	50	60	87	84	71	75	87
Highest Mean 10-min Speed		54	51	45	40	40	38	32	37	50	50	44	47	54
Mean days with gales		1.5	0.7	0.7	0.5	0.2	0.1	0.0	0.1	0.4	0.5	0.5	1.0	6.1
WEATHER														
(Mean no. of days with)														
Snow or Sleet		7.0	7.0	4.0	2.0	0.3	0.0	0.0	0.0	0.0	0.1	2.0	4.0	26.4
Snow lying at 9h *(GMT)*		4.9	3.4	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.1	11.2
Hail		0.8	1.6	3.1	2.9	1.8	0.5	0.1	0.2	0.3	0.5	1.1	1.0	13.9
Thunder		0.1	0.1	0.1	0.3	1.1	1.5	1.1	1.1	0.5	0.1	0.1	0.2	6.3
Fog		3.3	2.0	2.2	1.1	0.5	0.7	0.6	1.9	2.8	2.9	3.4	2.8	24.2
Air Frost		12	10	8	3	0.7	0.0	0.0	0.0	0.1	0.7	6	8	48.5
Ground Frost		16	15	13	11	6	1.0	0.2	0.6	2	5	13	15	98



Frequency scale
0 10% 20%

Wind Speed (kts)
1 - 10 11-21 22 or more

Notes:

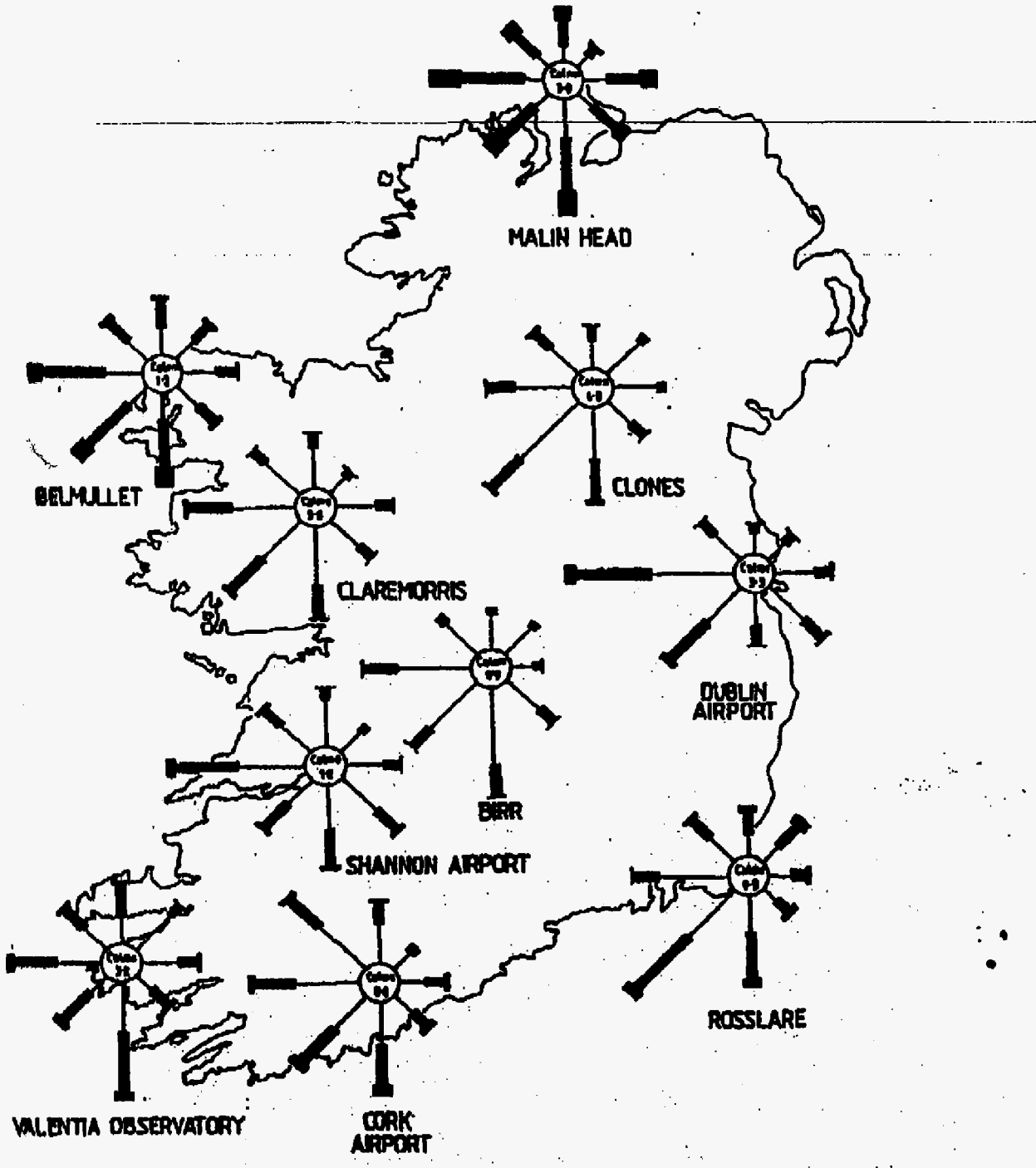
(a) Temperature in degrees Celsius

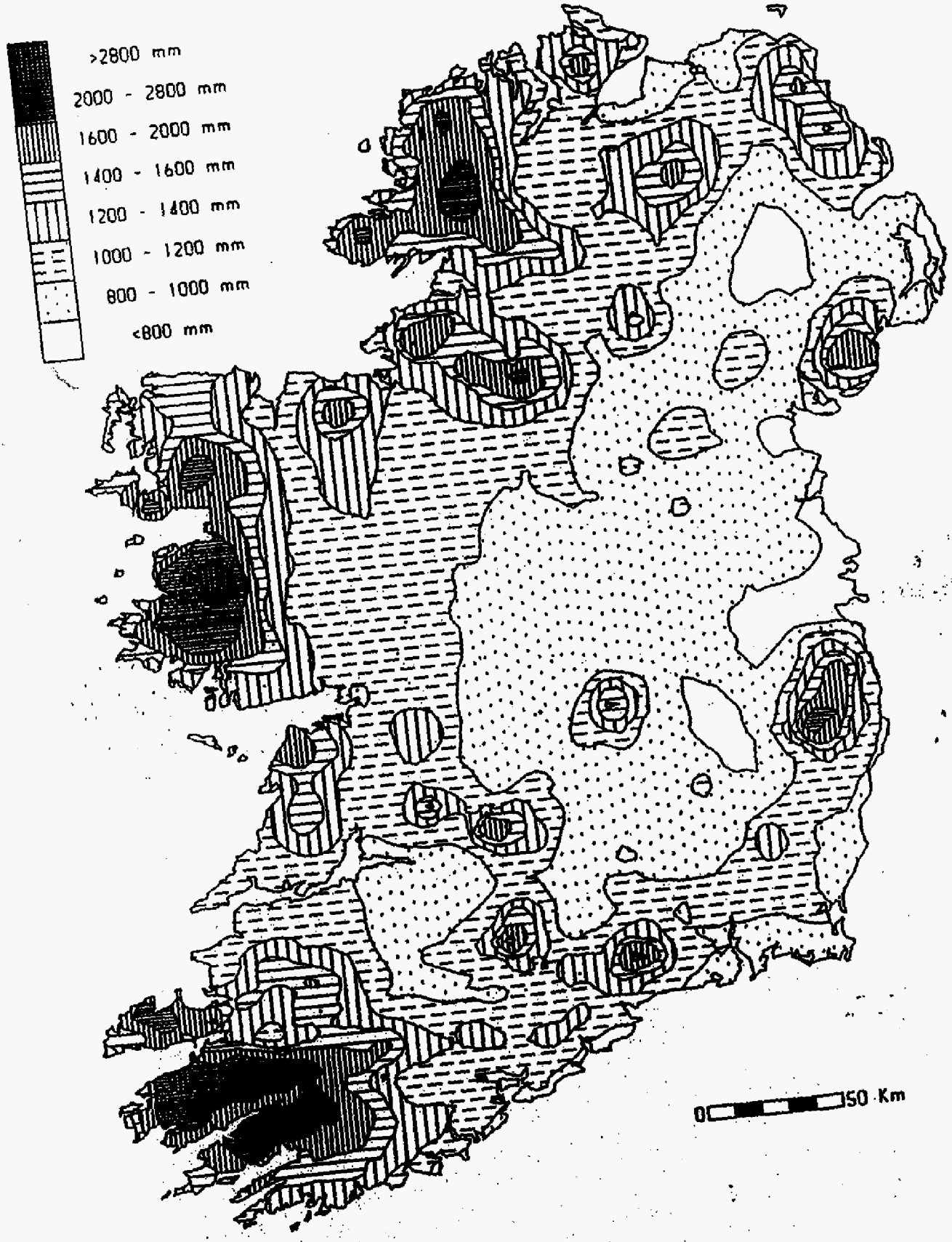
(b) Sunshine duration in hours

(c) Rainfall amounts in millimetres

(d) Wind speed in knots (1 knot = 1.15 mph)

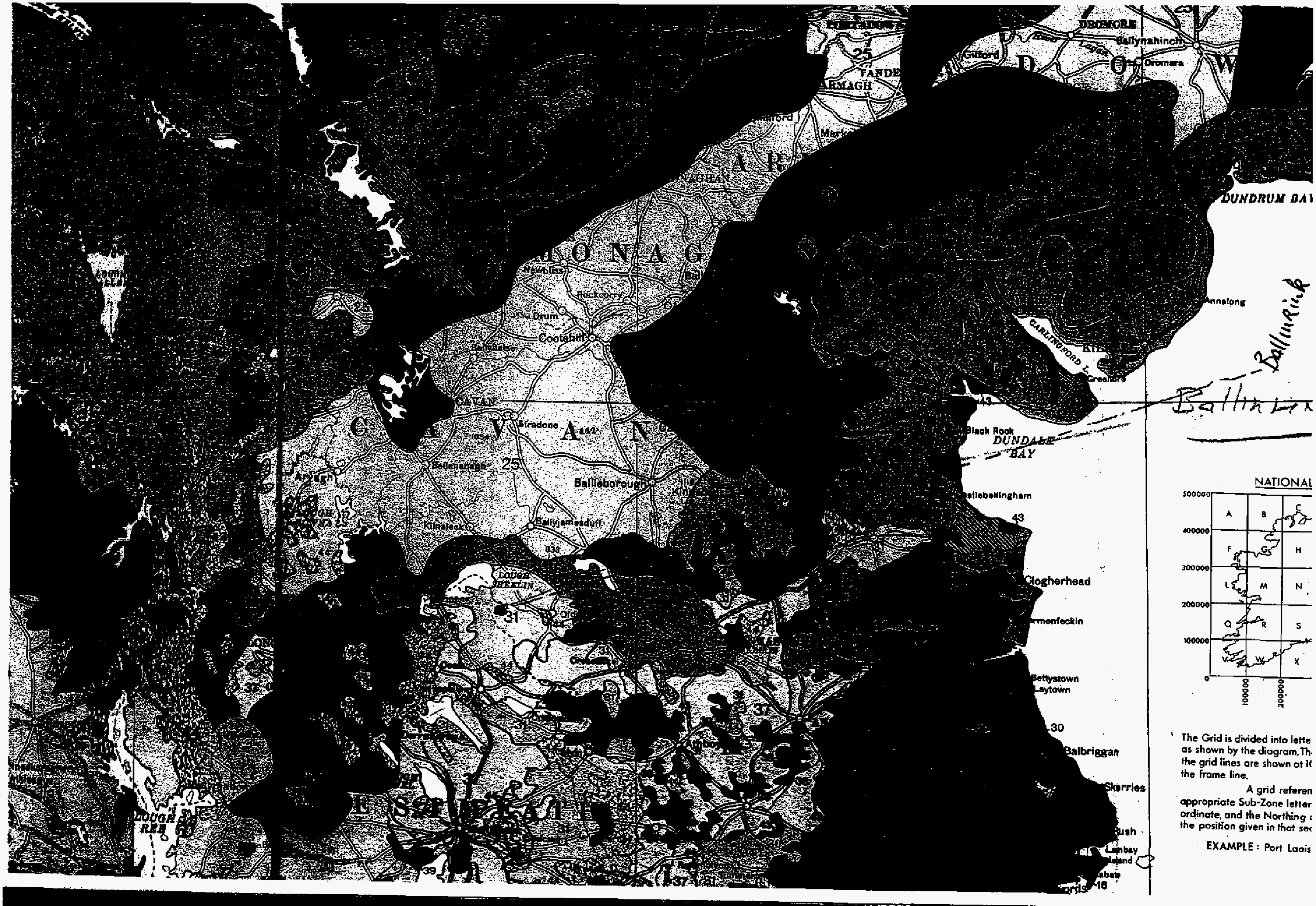
(e) A gale is a mean wind speed of 33.5 knots or more


MALIN HEAD
BELMULLET
CLONES
CLAREMORRIS
DUBLIN AIRPORT
BIRR
SHANNON AIRPORT
ROSSLARE
VALENTIA OBSERVATORY
CORK AIRPORT
Scale of frequency 0 5 10 15 20 25%
Scale of speed
Beaufort force
0-3 to 3/4
1 to 3
5-5 to 10-7
4 & 5
10-8 or more
6 or more
metres/sec


>2800 mm
2000 - 2800 mm
1600 - 2000 mm
1400 - 1600 mm
1200 - 1400 mm
1000 - 1200 mm
800 - 1000 mm
<800 mm
0
150 Km

Appendix No. 15

Extract from Soil Map of Ireland.


DROMORE
Ballynahinch
Dromara
ARMAGH
DUNDRUM BAY
MONAGHAN
Newbliss
Rockcorry
Cootehill
CAVAN
Stradone
Bailieborough
Ballyjamesduff
LOUGH SHEELIN
Annalong
CARLINGFORD L.
Greenore
Black Rock
DUNDALK BAY
Clogherhead
Bettystown
Laytown
Balbriggan
Skerries
Rush
Lambay Island
NATIONAL
500000
400000
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100000
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A
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M
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Q
R
S
V
W
X
The Grid is divided into lette
as shown by the diagram. Th
the grid lines are shown at 1(
the frame line.
A grid referen
appropriate Sub-Zone letter
ordinate, and the Northing c
the position given in that sec
EXAMPLE: Port Laois

supplied by:

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Soils of Northern Ireland: S.McConaghy, V.McAllister.

Cartography: V.Staples, J.Lynch.

Except for soil number changes dictated by the enlarged legend, the soils information for Northern Ireland is the same as that on the first edition, 1969 and sanctioned by the Controller of H.M.Stationery Office.

Smaller islands not surveyed.

Physiographic Divisions	Soil Association Nos.	Principal Soil	Associated Soils	Parent Material	Per cent of total area
Drumlin (Mineral and Organic Soils)	26	Gleys (60%)*	Acid Brown Earths (40%) Interdrumlin Peat and Peaty Gleys (30%)	Mostly Ordovician – Silurian shale sandstone glacial till	2·57 3·66
		Gleys (60)*	Acid Brown Earths (40)	Basalt glacial till	— 1·86
		Gleys (65)*	Interdrumlin Peat and Peaty Gleys (15)	Mostly Upper Carboniferous limestone and shale – sandstone glacial till	3·77 4·73
Drumlin (Mineral and Organic Soils)		Grey Brown Podzolics (60)	Gleys (20), Interdrumlin Peat and Peaty Gleys (20)	Mostly limestone glacial till	3·43 3·23
		Acid Brown Earths (75)	Interdrumlin Peat and Peaty Gleys (25)	Mostly Ordovician – Silurian shale – glacial till	1·16 2·73
		Grey Brown Podzolics (70)	Brown Earths (20) Gleys (5) Basin Peat (5)	Limestone morainic gravels and sands	2·64 2·18
	41	Minimal Grey Brown Podzolics (80)	Gleys (10) Brown Earths (5) Basin Peat (5)	Limestone glacial till	4·47 3·70
Undulating lowland (Mineral Soils)		Degraded Grey Brown Podzolics (50)	Peat (15) Brown Earths (15) Gleys (10), Podzols (10)	Mostly limestone glacial till	3·08 2·56
		Shallow Brown Earths and Rendzinas (60)	Grey Brown Podzolics (25) Gleys (10) Peat (5)	Limestone till, shallow in places	3·21 2·66
		Minimal Grey Brown Podzolics (70)	Gleys (20) Brown Earths (10)	Limestone glacial till	6·02 4·98
		Grey Brown Podzolics (80)	Gleys (10), Brown Earths (10)	Stony limestone glacial till	·64 ·53
		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
		Grey Brown Podzolics (75)	Gleys (25)	Till of Irish Sea origin with limestone and shale	1·14 ·95
		Gleys** (90)	Grey Brown Podzolics (10)	Limestone glacial till	3·27 2·86
		Gleys* (80)	Grey Brown Podzolics (20)	Till of Irish Sea origin with limestone and shale	2·07 1·56
Undulating lowland (Mineral and Peat Soils)		Gleys* (75)	Acid Brown Earths (15) Peaty Gleys (10)	Basalt glacial till	— ·22
		Gleys* (90)	Grey Brown Podzolics (10)	Glacial muds of Irish Sea origin	·49 ·61
		Gleys (60)	Brown Earths (20) Peaty Gleys (20)	Alluvium	1·34 1·15
	44	Basin Peat			5·79 5·08

Prepared and published by the National Soil Survey, An Foras Taluntais.

Copies of this map and bulletin available from Publications Section, An Foras Taluntais, 19 Sandymount Avenue, Dublin 4.

Appendix No. 16

Copy of transitional provisional provisions as provided for by S.I. 378 of 2006.

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) Notwithstanding Articles 16 and 26, the application of nitrogen or phosphorus to land at any time prior to 30 October 2007 in quantities exceeding those prescribed by Article 16 shall not be an offence for the purposes of Article 16 in case where the nitrogen or phosphorus arises from an activity in relation to which there was in force on 30 April 2006 a licence under Part IV of the Act of 1992.

(3) Notwithstanding Articles 16 and 26 and sub-article (2), the application to land prior to 1 January 2011 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,

(b) such compost or manure, as the case may be, is produced on a holding on which, on the making of these Regulations, activities were being carried on 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 subsequent to the making of these Regulations, and

(c) the occupier of the holding on which the phosphorus is applied to land holds records which demonstrate compliance with paragraphs (a) and (b).

Appendix No. 17

Copy of existing I.P.C. Licence granted to this farm.

Headquarters,
Johnstown Castle Estate
Wexford, Ireland

INTEGRATED POLLUTION PREVENTION AND CONTROL LICENCE

Licence Register Number:	696
Licensee:	Mr. John Erskine
Location of Activity:	Crosses
	Monaghan
	County Monaghan

Table of Contents

Page No.'s

Glossary of Terms

The Agency	Environmental Protection Agency.
The Licensee	Mr. John Erskine, Crosses, Monaghan, County Monaghan.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	All or part of a period of twelve consecutive months.
BAT	Best Available Techniques.
Bi – monthly	Every two months
BOD	5 day Biochemical Oxygen Demand.
Breeding unit	A piggery in which pigs are bred and reared up to 30kg in weight.
Buffer zone	Area excluded from landspreading of waste.
CEN	Comité Européen de Normalisation - European Committee for Standardisation.
Clients list Table 11B(i)	A list of farmers and associated farmlands used for the landspreading of slurry from the facility.
COD	Chemical Oxygen Demand.
Daily	During all days of plant operation, and in the case of emissions, when emissions are taking place; with no more than 1 measurement on any one day.
Daytime	0800 hrs to 2200 hrs.
Daylight hours	Lighting-up time plus an hour
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
EIS	Environmental Impact Statement.
EMP	Environmental Management Programme.
EWC	European Waste Catalogue (2000/532/EC as amended)
Freeboard	The difference in elevation between the maximum elevation of the slurry/manure and the minimum elevation of the storage tank.
ha	hectare.
Integrated unit	A piggery in which pigs are bred and reared to slaughter.

IPPC	Integrated Pollution Prevention and Control
Landspreading	The application of slurry/manure to farmland
Leq	Equivalent continuous sound level.
Local Authorities	Monaghan County Council & Armagh City and District Council.
Monthly	At least 12 times per year at approximately monthly intervals.
Night-time	2200 hrs to 0800 hrs.
NMP	Nutrient Management Plan
Noise sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Odour sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of odour at nuisance levels.
ppm	Parts per million.
Production pig	Any pig over 30kg in weight which is being fattened for slaughter.
Quarterly	All or part of any three consecutive months beginning on the first day of January, April, July or October.
Regional Fisheries Board	Northern and Eastern Regional Fisheries Board.
Slurry/manure	Animal faeces, urine, washwater and any associated feed or bedding.
SOP	Standard Operating Procedure.
Sow	A female pig after its first farrowing.
Standard Methods	As detailed in "Standard Methods for the Examination of Water and Wastewater", (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 20th Ed. 1998, American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or, an alternative method as may be agreed in writing by the Agency.
TOC	Total Organic Carbon.
Waste disposal activity	Means any of the activities included in the Third Schedule to the Waste Management Acts 1996 to 2003.
Waste recovery activity	Means any of the activities included in the Fourth Schedule to the Waste Management Acts 1996 to 2003.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.

Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Acts, 1992 and 2003.

In reaching this decision the Agency has considered the application and supporting documentation received from the applicant and the report of its inspector.

No objection having been received to the proposed determination, the licence is granted in accordance with the terms of the proposed determination and the reasons therefor.

Activities Licensed

In pursuance of the powers conferred on it by the Environmental Protection Agency Acts, 1992 and 2003, the Agency hereby grants a licence to:

Mr. John Erskine, Crosses, Monaghan, County Monaghan,

under Section 83(1) of the said Acts to carry on the following activity

:- the rearing of pigs in an installation, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds- 285 places for sows in an integrated unit,

at Crosses, Monaghan, County Monaghan, subject to the following thirteen Conditions, with the reasons therefor and associated schedules attached thereto.

Conditions

Condition 1 Scope

1.1 The activity shall be controlled, operated, and maintained and emissions shall take place as set out in this Integrated Pollution Prevention and Control (IPPC) licence. All programmes required to be carried out under the terms of this licence, become part of this licence.

1.2 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in

(a) a material change or increase in:

1.2.1 The nature or quantity of any emission,

1.2.2 The abatement/treatment or recovery systems,

1.2.3 The range of processes to be carried out,

1.2.4 The fuels, raw materials, products or wastes generated with adverse environmental significance, or

(b) any changes in:

1.2.5 The site management and control with adverse environmental significance,

shall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.

1.3 This licence is for the purposes of IPPC licensing under the EPA Acts, 1992 and 2003 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.4 Any reference in this licence to 'site' shall mean the plan area edged in black and labelled 'Site Layout', Attachment No. 5, in the licence application.

1.5 This licence relates to a facility with the capacity to house a maximum number of animals as described in *Schedule 1(i) Animal Numbers Housed at the Facility.*

Reason: To clarify the scope of this licence.

Condition 2 Management of the Activity

2.1 Corrective Action

2.1.1 The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined.

2.2 Awareness and Training

2.2.1 The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2 Personnel/contractors performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required. The licensee must ensure that contractors/agents involved in transport of waste are appropriately trained and/or experienced, and receive adequate supervision on site.

2.3 Responsibilities

2.3.1 The licensee shall ensure that a person in charge, as defined under the terms of the Environmental Protection Agency Acts, 1992 and 2003 shall be available on-site to meet with authorised persons of the Agency at all reasonable times.

2.3.2 The licensee shall be satisfied that the recipient of the slurry/manure is aware of the nutrient management plan (Condition 5.5.6), code of practice and buffer zones covering landspreading (Condition 5.5.7) and of the requirements for storage of the slurry/manure (Condition 5.5.2).

2.4 Communications

2.4.1 The licensee shall put in place a programme to ensure that members of the public can obtain information concerning the environmental performance of the licensee at all reasonable times.

2.4.2 For each full calendar year from the date of grant of this licence, the licensee shall submit to the Agency, by the 1st February of the following year, an AER which shall be to the satisfaction of the Agency. This report shall include as a minimum the information specified in *Schedule 4(i) Recording and Reporting to the Agency* and shall be prepared in accordance with any relevant guidelines issued by the Agency. In addition, the first AER report shall, separately from the calendar year report, include a report covering the period from the date of grant of the licence to the 31st December of the same year.

2.5 Vermin Control

2.5.1 The licensee shall maintain sufficient and continuous vermin control at the site.

Reason: *To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.*

Condition 3 Notification

3.1 The licensee shall notify the Agency by both telephone and with the agreement of the Agency, either facsimile or electronic mail, if available, to the Agency's Office of Environmental Enforcement, McCumiskey House, Richview, Clonskeagh Road, Dublin 14, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

3.1.1 Any unauthorised emission from the facility.

3.1.2 Any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to air or land, or requiring an emergency response by the Local Authority.

3.2 The licensee shall include as part of the notification, the date and time of the incident, details of the occurrence, and the steps taken to minimise the emissions and avoid recurrence. The licensee shall make a record of any incident as set out in Condition 3.1 above. The notification given to the Agency shall include details of the circumstances giving rise to the incident and all actions taken to minimise the effect on the environment and minimise wastes generated.

3.3 A summary report of reported incidents shall be submitted to the Agency as part of the AER. The information contained in this report shall be prepared in accordance with any relevant guidelines issued by the Agency.

3.4 In the case of any incident as set out in Condition 3.1.2 above which relates to contamination of surface or groundwater, the licensee shall notify the relevant Regional Fisheries Board as soon as practicable after such an incident.

3.5 In the event of any incident, as set out in Condition 3.1.2 having taken place, the licensee shall notify the relevant Local Authority as soon as practicable, after such an incident.

Reason: To provide for the notification of incidents and update information on the activity.

Condition 4 Emissions to Atmosphere

4.1 The licensee shall ensure that all operations on-site shall be carried out in a manner such that air emissions and/or odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the site boundary and at odour sensitive locations.

4.2 The licensee shall, within twelve months of the date of grant of licence, submit an odour management programme for agreement by the Agency outlining odour management measures appropriate for the site. The licensee shall implement this odour management programme, within a specified timeframe to be agreed in writing with the Agency. The odour management programme shall be reviewed annually and necessary amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER) (Condition 2.4.2).

Reason: To provide for the protection of the environment by way of control, limitation, treatment and monitoring of emissions.

Condition 5 Waste Management

5.1 Disposal or recovery of waste shall take place only as specified in *Schedule 2(i) Wastes for Disposal/Recovery* of this licence and in accordance with the appropriate National and European legislation and protocols. No other waste shall be recovered on-site or disposed of/recovered off-site without prior notice to, and prior written agreement of, the Agency.

5.2 Animal tissue or carcasses stored on-site pending disposal shall be placed in covered, leak proof containers and shall at a minimum be removed weekly for disposal in accordance with *Schedule 2(i) Wastes for Disposal/Recovery*. This may be reduced to fortnightly removal during October to March.

5.3 With the exception of waste transported by the licensee to his own lands which are connected or associated with the activity, waste sent off-site for recovery or disposal shall be conveyed only by agreed persons or authorised contractors. All wastes shall be transported from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment.

5.3.1 Animal tissue or carcasses sent off site for disposal/recovery shall be transported in covered, leak proof containers.

5.3.2 The transport of slurry/manure via the public road shall be carried out in sealed containers such that no spillage can occur.

5.4 For wastes other than those destined for landspreading, a full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall as a minimum contain details of the following:

5.4.1 The names of the agent and carrier of the waste, and their permit details (to include issuing authority).

5.4.2 The name of the persons responsible for the ultimate disposal/recovery of the waste.

5.4.3 The ultimate destination of the waste.

5.4.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

5.4.5 The tonnages and EWC Code for the waste materials listed in *Schedule 2(i) Wastes for Disposal/Recovery,* sent off-site for disposal/recovery.

5.4.6 Details of any rejected consignments.

A copy of this Waste Management Record shall be submitted to the Agency as part of the AER for the site.

5.5 Where wastes are destined for landspreading the following shall apply:

5.5.1 Monitoring of available storage capacity for slurry/manure shall be undertaken as outlined in *Schedule 2(ii) Waste Monitoring*. Results shall be retained on site and available for inspection by the Agency at all reasonable times. The results shall be submitted to the Agency in a summary report included as part of the AER.

5.5.2 The licensee shall ensure that in cases where there is transfer of slurry or manure from the facility to storage provided on farms in the clients list table 11 B(i) of the application, that it is contained in a purpose built slurry holding structure adequate for the protection of groundwater and surface water.

5.5.3 Landspreading from this activity shall take place only on lands agreed in advance in writing by the Agency.

5.5.4 Agreements between the licensee and recipients of wastes for landspreading shall not conflict with any conditions in this licence.

5.5.5 Soil monitoring shall be undertaken as outlined in *Schedule 3(ii) Soil Monitoring* and a summary report included as part of the Nutrient Management Plan.

5.5.6 All landspreading activities shall be undertaken in accordance with a Nutrient Management Plan which must be agreed in advance with the Agency. The Nutrient Management Plan shall be submitted by the first of February annually. Thereafter, alterations to this must be agreed in advance in writing by the Agency.

5.5.7 Landspreading shall be carried out in accordance with *Schedule 2(iii) Buffer Zones for Landspreading of Organic Waste* and *Schedule 2(iv) Code of Practice for Landspreading of Organic Waste*. All landspreading activities shall be carried out in such a manner as to avoid contamination of surface and groundwaters, so as to minimise odour nuisance from the activity.

5.5.8 The licensee shall demonstrate to the satisfaction of the Agency compliance with Department of Agriculture and Rural Development (DARD) Northern Ireland (NI) requirements prior to the movement of slurry/manure for landspreading in NI.

5.5.9 Where insufficient slurry recovery capacity is identified in the Nutrient Management Plan (NMP), the licensee shall reduce pig numbers on-site to a level consistent with the recovery capacity available as agreed by the Agency.

5.5.10 Landspreading shall be undertaken using soil injection, bandspreading, or low trajectory splashplate methods. Any other method must receive prior written agreement from the Agency.

5.5.11 A register of landspread slurry/manure ('Slurry/Manure Register') shall be maintained on site on a daily basis and shall be available for inspection by authorised personnel of the Agency at all reasonable times. This register shall include details of the following:

(i) Date of despatch of slurry/manure.

(ii) Name of person who transported the slurry/manure.

(iii) Name of contractor/person who landspread the slurry/manure, when landspread by or on behalf of the licensee.

(iv) Name of farmer who received the slurry/manure.

(v) The quantity of slurry/manure in each consignment.

(vi) The quantity of nitrogen and phosphorus in each consignment of slurry/manure.

5.5.12 The details, as per Condition 5.5.11, from the register shall be reported to the Agency bi-monthly, and annually as part of the AER.

5.6 Domestic sewage from the facility shall be discharged to the on-site septic tank. The septic tank should be inspected every six months and desludged at least annually and records of these inspections shall be maintained by the licensee. Landspreading of residual sludge shall be in accordance with Condition 5.5 and the Waste Management (Use of Sewage Sludge in Agriculture) Regulations 1998 to 2001.

Reason: To provide for the disposal of waste and the protection of the environment.

Condition 6 Noise

6.1 Activities on-site shall not give rise to noise levels off site, at noise sensitive locations, which exceed the following sound pressure limits (Leq, 30 minute):

6.1.1 Daytime: 55 dB(A),

6.1.2 Night-time: 45 dB(A).

6.2 There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.

Reason: To provide for the protection of the environment by control of noise.

Condition 7 Protection of Surface Waters and Groundwaters

7.1 The licensee, shall provide within twelve months and subsequently maintain, a rainwater collection and drainage system for all pig housing on-site.

7.2 The licensee shall divert all uncontaminated surface water runoff from roofs and non-contaminated impervious areas of the site, to the surface water drainage system. The drainage system shall discharge through one outfall, other than surface water discharges direct from roofs, as identified in *Schedule 3(i) Surface Water Discharge Monitoring*. The licensee shall provide an inspection chamber at each outlet of the surface water drain.

7.3 There shall be no unauthorised discharge of polluting matter to water.

7.4 The licensee shall monitor surface water discharges in accordance with *Schedule 3(i) Surface Water Discharge Monitoring* of this licence. This shall be reported annually as part of the AER.

7.5 In the event that any analyses or observations made on the quality or appearance of surface water should indicate that contamination has taken place, the licensee shall:

(i) carry out an immediate investigation to identify and isolate the source of the contamination,

(ii) put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment,

(iii) and notify the Agency, in accordance with Condition 3.1, as soon as is practicable.

7.6 The licensee shall ensure a minimum of six months slurry storage capacity at the site. The minimum storage capacity on site shall be 6,430m^3. Proposals for additional storage capacity shall be agreed by the Agency prior to implementation.

7.7 The licensee shall ensure that a freeboard of at least 100mm from the top of each covered slurry storage tanks and 500mm from the top of uncovered slurry storage tanks is maintained, as a minimum, at all times.

7.8 Underground, partly underground or overground concrete storage facilities shall conform to the Department of Agriculture, Food and Forestry specifications (S108, S123) or equivalent standard. Leak detection facilities shall be installed under all new tanks. Leak detection facilities shall be provided under reconstructed tanks, other than where agreed in writing with the Agency.

7.9 The licensee shall within six months from the date of grant of this licence submit a programme for agreement by the Agency on the assessment of under and over-ground effluent storage tanks which form part of the six month slurry storage capacity, pipelines and liquid feed storage tanks to ensure that all storage tanks and pipelines are assessed within twelve months of the date of grant of this licence and at least once every five years thereafter. In the case of new storage facilities installed on site, the assessment shall be undertaken prior to utilisation. A report on such assessment shall be included in the AER, together with proposals for repair of any significant defects found.

7.10 The licensee shall examine and complete a report including recommendations on the installation of a protective bund/wall between the overground slurry storage tanks and the stream on the northern boundary of the site. The report shall be submitted to the Agency within six months of the date of grant of this licence for approval. The recommendations identified in the report shall be implemented on-site within a period to be agreed with the Agency.

7.11 Where overground storage facilities are utilised, the licensee shall within twelve months of the date of grant of licence, with the agreement of the Agency:

(i) provide tanks with two lockable valves in line,

(ii) provide an appropriate reception pit with level alarm,

(iii) provide an external safety ladder and railed platform to facilitate inspection,

(iv) undertake measures as necessary for the protection of tanks from damage by vehicles or trailers,

(v) provide a partial earthen bund to ensure sufficient protection of the clean water outfall in event of tank overflow, collapse or leakage subject to Condition 7.10 above.

7.12 The licensee shall within twelve months prepare and maintain on-site a management procedure for the transfer of slurry to and from the overground slurry storage tank. The procedure shall be available on-site for inspection by the Agency at all reasonable times.

7.13 Fuel and whey tank storage facilities shall, within twelve months of the date of grant of licence, as a minimum be bunded, either locally or remotely, to a volume not less than the greater of the following;

(i) 110% of the capacity of the largest tank or drum within the bunded area,

(ii) 25% of the total volume of substance which could be stored within the bunded area.

Drainage from bunded areas shall be diverted for collection and safe disposal. All bunds shall be tested at least once every five years. A report on such tests shall be included in the AER.

Reason: To provide for the protection of surface waters and groundwater.

Condition 8 Energy Use

8.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The audit shall be carried out in accordance with the guidance published by the Agency; "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit shall be repeated at intervals as required by the Agency.

8.2 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible.

8.3 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity.

Reason: To provide for the efficient use of energy in all site operations

Condition 9 Residuals Management

9.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

Reason: *To make provision for the proper closure of the activity ensuring protection of the environment.*

Condition 10 Monitoring

10.1 The licensee shall carry out such sampling, analyses, measurements, examinations, as set out in Schedules:-

Schedule 2(ii) Waste Monitoring,

Schedule 3(i) Surface Water Discharge Monitoring,

Schedule 3(ii) Soil Monitoring,

of this licence.

10.2 The licensee shall install and maintain a water meter on all water supplies serving the pig unit within six months from the date of grant of this licence. Records of water usage shall be maintained on site and a summary records report shall be submitted annually as part of the AER.

10.3 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the written agreement of the Agency following evaluation of test results. The licensee shall install on all emission points such sampling points or equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

10.4 The licensee shall provide safe and permanent access to the following sampling and monitoring points:

10.4.1 Waste storage areas on-site,

10.4.2 Surface water discharge points,

and safe access to any other sampling and monitoring points required by the Agency.

Reason: *To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions.*

Condition 11 Recording and Reporting to Agency

11.1 The licensee shall record all sampling, analyses, measurements, examinations and maintenance carried out in accordance with the requirements of this licence.

11.2 The licensee shall record all incidents which affect the normal operation of the activity and which may create an environmental risk.

11.3 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint. The licensee shall submit a report to the Agency, bi-monthly, giving details of any complaints which arise. A summary of the number and nature of complaints received shall be included in the AER.

11.4 The format of all records required by this licence shall be to the satisfaction of the Agency. Records shall be retained on-site for a period of not less than seven years and shall be available for inspection by the Agency at all reasonable times.

11.5 Reports of all recording, sampling, analyses, measurements, examinations, as set out in *Schedule 4(i) Recording and Reporting to the Agency* in this licence, shall be submitted to the Agency's Office of Environmental Enforcement, McCumiskey House, Richview, Clonskeagh Road, Dublin 14, or any other named Regional Office as requested. The format of these reports shall be to the satisfaction of the Agency. One original and two copies shall be submitted as and when specified.

11.6 All reports shall be certified accurate and representative by the licensee or other senior officer designated by the licensee.

11.7 All written procedures controlling operations affecting this licence shall be available on-site for inspection by the Agency at all reasonable times.

11.8 The frequency and scope of reporting, as set out in this licence, may be amended by the Agency following evaluation of test results.

Reason: To provide for the collection and reporting of adequate information on the activity.

Condition 12 Accident and Emergency Response

12.1 The licensee shall ensure, within six months of the date of grant of this licence, that an Accident and Emergency Response Procedure is in place which shall address any accident and emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any accident and emergency on the environment.

Reason: To provide for the protection of the environment.

Condition 13 Financial Provisions

13.1 Agency Charges

13.1.1 The licensee shall pay to the Agency an annual contribution of €3,263, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Environmental Protection Agency Acts, 1992 and 2003. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Acts, 1992 and 2003, and all such payments shall be made within one month of the date upon which demanded by the Agency.

13.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

Reason:	*To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

Schedule 1(i) Animal Numbers Housed at the Facility

Animal Class	Numbers Note 1, 2
Farrowing/Suckling Sows	150
Dry Sows	550
Maiden Gilts	120
Boars	5
Weaners	2700
Finishers	2200

Note 1: This excludes suckling pigs maintained on site.

Note 2: The Agency may accept a 5% increase in the number of finishers for a period not exceeding 4 weeks twice annually. Any other variation in these numbers requires prior written agreement from the Agency.

Schedule 2(i) Wastes for Disposal/Recovery

Waste Materials	Further Treatment On-Site	On-site Recovery, Reuse or Recycling Note 1	Method of Off-Site Disposal
Veterinary Waste	None	None	To be agreed by the Agency
Animal tissue or carcasses	None	None	Agreed contractor
Fluorescent Tubes	None	None	To be agreed by the Agency
Domestic and canteen waste	None	None	Agreed disposal contractor
Animal slurry/manure	None	None	Landspreading
Other Note 2			

Note 1: The licensee may further treat, reuse, recycle or recover waste subject to the prior written agreement of the Agency.

Note 2: No other waste shall be disposed of or recovered off-site without prior notice to, and prior written agreement of the Agency.

Schedule 2(ii) Waste Monitoring

Waste Monitoring Reference(s): As labelled in Site Layout Attachment No. 5

Waste Materials	Frequency	Parameter	Waste Monitoring Reference
Slurry/Manure	Weekly	Available storage capacity.	Slurry storage tanks under the following houses: 5, 9, 10, 12 and over ground storage tank (Labelled 19).

Schedule 2(iii) Buffer Zones for Landspreading of Organic Waste

No organic waste shall be spread within the following buffer zones:

Area	Buffer zone (m)
Sensitive buildings (hospitals, schools and churches)	200
Dwelling houses	100 [Note 1]
Karst features	30
Lakes and main river channels	20
Small watercourses [Note 2]	10
Public Roads [Note 2]	10
Domestic wells [Note 2]	50
Public water supplies [Note 2 & Note 3]	300 m or 100 days travel time

Note 1: This distance may be decreased with the written consent of the occupier and prior written agreement by the Agency.

Note 2: The above distances to be increased if the gradient is greater than 6% (1:17).

Note 3: The appropriate distance depends on vulnerability and groundwater flow direction.

Schedule 2(iv) Code of Practice for Landspreading of Organic Waste [Note 1]

Spreading shall not take place:

- On wet or waterlogged ground.
- On frozen or snow covered ground.
- On exposed bedrock.
- Where surface gradients are excessive (preferably <18% (1:5)).
- On fields that display cracks over pipe or mole drainage systems.
- On fields that have been pipe or mole drained or subsoiled over a pipe or mole drainage system in the last 12 months.
- During November to February inclusive except with the agreement of the Agency.
- Outside daylight hours.
- In a manner which would have an adverse effect on a National Monument.

Loadings:

- Regardless of the dilution factor, the maximum hydraulic loading per single application shall not exceed 25 m^3 per hectare on shallow limestone soils and in no case shall exceed 50 m^3 per hectare.
- Application of slurry/manure shall not be made on soils with a Morgan's P test in excess of 10 mg P/litre sampled to a depth of 10 cm.

Organic Waste application shall be in accordance with the following guidelines:

- Landspreading on lands with extreme groundwater vulnerability ratings [Note 2] would be considered Not Generally Acceptable.
- Application shall be made such that the rate of application of nitrogen from organic wastes does not exceed 250 kg N/ha per annum subject to statutory requirements.
- No application on tillage land left fallow for the winter.
- Landspreading shall be in accordance with the current Teagasc nutrient recommendations or the current Department of Agriculture and Food, REPS recommendations.
- No application when the risk of causing odour nuisance to the public is greatest e.g. Sundays or public holidays.
- No application during meteorological conditions which increase the risk of odour nuisance.
- No application where significant rain is forecast within 48 hours.

Note 1: This Code of Practice may be amended by the Agency as further environmental information becomes available.

Note 2: As defined in *Groundwater Protection Schemes*, DoELG/EPA/GSI joint publication 1999.

Schedule 3(i) Surface Water Discharge Monitoring

Emission Point Reference No's.: SW1 (Storm water outfall at northern boundary of site)

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Weekly	Not Applicable
COD or BOD	Quarterly	Standard Methods

Schedule 3(ii) Soil Monitoring

Monitoring Point Reference No's.[Note 1,2]**:** For all spreadlands utilised in this IPPC licence

Conditions	Monitoring frequency	Analysis Method/Technique[Note 4]
Where no soil test available	Within 12 months of grant of licence	Morgan's P Test[Note 3]
Where soil test ≤ 10 mg P/litre	Every 3 years	Morgan's P Test

Note 1: Additional sample monitoring locations may be required if the spreadlands are altered.

Note 2: Each sample shall be representative of a maximum area of 4 ha except where uniform cropping and landuse has been in place for the previous 5 years or more. In the latter situation a sample area of 12 ha is acceptable. Each sample shall be taken in accordance with the Teagasc soil sampling guidelines.

Note 3: M Peach & L English (1944) 'Rapid micro-chemical tests'. Soil Science 57: 167.

Note 4: Soil analysis shall only be conducted by the Department of Agriculture and Food approved laboratories.

Schedule 4(i) Recording and Reporting to the Agency

Completed reports shall be submitted to:

The Environmental Protection Agency
Office of Environmental Enforcement
McCumiskey House
Richview
Clonskeagh Road
Dublin 14

or Any other address as may be specified by the Agency

Reports are required to be forwarded as set out below:

Recurring Reports:

Report	Reporting Frequency	Report Submission Date
Slurry/manure register	Bi-Monthly	Ten days after end of the two months being reported on.
Complaints (where they arise)	Bi-Monthly	Ten days after end of the two months being reported on.
Nutrient Management Plan	Annually	By the 1st of February annually.
Annual Environment Report (AER)	Annually	By February 1st, 2006 and each year thereafter.
Tank and pipeline assessment and inspection programme	Every 5 years	Within six months from the date of grant of licence; thereafter as part of the AER.

Annual Environmental Report Content
Waste Management Report (arising from Condition 5) including details of the Waste Management Record, Waste Monitoring (Available slurry/manure storage capacity), and Slurry/Manure Register.
Water use monitoring
Feed composition and usage
Nutrient Management Plan
Ambient soil monitoring report
Surface water discharge monitoring
Tank and pipeline assessment and inspection report (Every five years)
Bund Inspection test (Every five years)
Reported incidents summary
Complaints summary
Investigate options for covering open slurry tanks, in order to minimise rainwater ingress and NH_3 volatilisation.
Energy efficiency audit (when required)

Once-off Reports:

Report	Report Submission Date
Odour management Programme	Within twelve months of date of grant of licence
Report on installation of protective bund/wall	Within six months of date of grant of licence

Signed on behalf of the Agency

Dara Lynott

_____

Director/Authorised Person

Dated this 20th day of January 2005.

Appendix No. 18

Surface Water Analysis Results

ANSER LABORATORIES LTD.

Analytical Services and Quality Control Laboratory

69A Killyman Street, Moy,
Co. Tyrone BT71 7EA

Telephone: (028) 8778 9599
Fax: (028) 8778 9552

C. L. W. Environmental Planners Lt
The Mews
23 Farnham St
Cavan
Cavan
12 April 2006

Chemistry Laboratory Certificate

073002			Logged 14/03/06
	Effluent		Sampled 14/03/06
			Completed
B.O.D.	3	mg/lt	04/04/2006

Chemistry Laboratory

"The results of analysis are indicative only of the actual sample referred to and may not be inferred to be representative of the batch"