

# Pig Farm

## ENVIRONMENTAL IMPACT ASSESSMENT REPORT (E.I.A.R.)



In respect of a proposed licence review  
for a pig farm at:

JORRISTOWN UPPER,  
KILLUCAN,  
CO. WESTMEATH.

On behalf of:

CLONDRISSE PIG FARM LTD.,  
GILLARDSTOWN HOUSE,  
GILLARDSTOWN,  
CASTLEPOLLARD,  
CO. WESTMEATH

March 2021



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## i. PREFACE

THE FOLLOWING FORMS ADDENDUM INFORMATION TO THE SUBMITTED ENVIRONMENTAL IMPACT STATEMENT (DATED NOVEMBER 2011):

THIS ADDENDUM HAS BEEN COMPLETED TO ADDRESS:

- ADDITIONAL INFORMATION REQUIRED AS DETAILED BY THE E.P.A. IN A FURTHER INFORMATION REQUEST DATED 12<sup>TH</sup> DECEMBER 2019 (AND WHERE APPLICABLE 5<sup>TH</sup> DECEMBER 2018).

## A ADDENDUM

### A.1 Introduction

This document contains additional information requested by the Environmental Protection Agency (E.P.A.) specifically in their letter dated 12<sup>th</sup> December 2019 relating to licence application reference number P0975-02. Same will also address some of the issues raised in previous Agency Correspondence dated 5<sup>th</sup> December 2018.

It relates to the Pig Farm at Joristown, Upper, Killucan, Co. Westmeath and EIS dated November 2011, reflects the issues raised in the Further Information request of 12<sup>th</sup> December 2019, and is submitted to update the E.I.S. in line with the requirements of the 2014 E.I.A. Directive 2014/52/EU.

Where no alteration to the E.I.S. has been deemed to be required, reference will be made to same, but the E.I.S. will not be replicated. Please refer to original E.I.S. in this instance. Same is included as Appendix No. 1.

## A.2 Outline

The following paragraph outlines how this addendum information is presented.

- The E.I.A.R. is structured to address the relevant criteria/headings as detailed in the applicable regulations.
- Where the original E.I.S. is referred to ..... is taken to mean that the existing text/paragraphs as per the E.I.S. as previously submitted are unaltered and are to be read in conjunction with this E.I.A.R. Addendum and have not been repeated.

## A.3 Summary of Updates

Updates that have occurred since the original EIS submission (November 2011) include the following:

- **Revision of E.I.A. requirements in accordance with requirements of 2014 E.I.A. Directive, and applicable legislation.**
- **Inclusion of Revised Natura Impact Statement.**
- **Inclusion of Ammonia Impact Assessment Report.**
- **Inclusion of Odour Impact Assessment Report.**
- **Commission Implementing Decision (EU) 2017/302 of 15 February 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs.**
- **Westmeath County Development Plan 2014 - 2020**

### Note to Updates:

While it is acknowledged that S.I. 610 of 2010 has been replaced by S.I. 605 of 2017 EUROPEAN UNION (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS) REGULATIONS 2017 as amended, and reference to this legislation is included in the E.I.A.R. Addendum, this has not specifically been updated throughout the original E.I.S. as this update has no material impact on the E.I.A.R. as completed as the requirements of this regulation as they pertain to the;

- Pig farm,

are substantially unchanged and have no material impact on the activities existing/proposed to be carried out, and/or the conclusions reached in this E.I.A.R. Addendum.

## A. NON-TECHNICAL SUMMARY

This Environmental Impact Assessment Addendum Report (E.I.A.R. Addendum) has been prepared by C.L.W. Environmental Planners Ltd. on behalf of Clondrisse Pig Farm Ltd., in respect of the current licence application in respect of an existing pig farm site at Jorristown Upper, Killucan, Co. Westmeath.

The E.I.A.R. Addendum has been prepared by Mr. Paraic Fay B.Agr.Sc, and Mr. Oliver Leddy B.Agr.Sc. of C.L.W. Environmental Planners Ltd. with the assistance of persons and bodies referred to hereafter, in support of an E.P.A. Licence Review application for this farm, to accommodate the housing of production pigs on the farm within the remit of the E.P.A. Licence. The farm is currently licensed by the Environmental Protection Agency, Ref. P0975-01, with said licence being the subject of this Licence review application.

The activity is to be operated within the confines of the applicants existing pig farm at Jorristown Upper, Killucan, Co. Westmeath. The E.I.A.R. has been prepared after an Environmental Impact Assessment (E.I.A.) of the activity carried out by C.L.W. Environmental Planners Ltd., to address the requirements of the Agency,

EIA requirements derive from Council Directive 85/337/EEC (as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC) and as codified and replaced by Directive 2011/92/EU of the European Parliament and the Council on the assessment of the effects of certain public and private projects on the environment and as amended in turn by Directive 2014/52/EU. This E.I.A.R. has been completed with regard to the aforementioned directives and with reference to the Planning and Development Act 2000 (as amended), Planning & Development Regulations 2001, as amended, and the Protection of Environment Act 2003.

The farm has been operated as a pig farm for the last c. 40-50 years. It is currently licensed as a c. 625 Sow Breeding pig unit, together with all ancillary structures and facilities necessary for the operation of this enterprise. Pig farming activities are the only agricultural activities carried out on this site by the applicant. The licence review seeks to **accommodate the housing of production pigs on the farm within the remit of the E.P.A. Licence.**

The activity will be contained within the existing site and/or existing housing, and will not require any additional infrastructure, and as such will not have any additional potential visual impact. The licensable activity will be wholly contained within the existing structures completed under planning ref: 11/2091. The capacity of the licensable activity is unchanged from that previously approved for this farm by Westmeath Co. Co.

The farm is above the threshold as detailed in Schedule 5 Part 2 of the Planning and Development Regulations 2001, as amended, i.e. Class 1(e) (ii) activity, "Installations for intensive rearing of pigs not included in Part 1 of this Schedule which would have:

- **more than 2000 places for production pigs (over 30 Kilograms)** in a finishing unit,
- more than 400 places for sows in a breeding unit, or,
- **more than 200 places for sows in an integrated unit.**

All manure is to be moved off-site to customer farmers in line with the requirements of S.I. 605 of 2017, as amended, with records of same submitted to The Department of Agriculture, Food and The Marine on an annual basis.

The activity will be located in the townland of Joristown, within the existing pig farmyard complex. The applicant is highly experienced in pig farm management, having been involved in pig farming for in excess of 30 years. The capacity of this farm is in excess of that for which a Licence from the Environmental Protection Agency (E.P.A.) is required. The applicant is currently licensed under E.P.A. Licence No. P0975-01. The present enterprise provides employment for the 5 – 6 people.

The application site lies within the Boyne Hydrometric Area and Catchment, and the Deel Sub-Catchment and Sub-Basin. There are no surface water features within or adjacent to the application site. There is a pond close to the farm site and this is 88m north-east of farm. The River Deel is 1.2km east of the farm. The River Deel is a tributary of the River Boyne and the confluence of these two waterbodies is 11.5km south-east of the application site.

The EPA have classified the ecological status of the River Deel as being of good ecological status at points upstream of Raharney, whilst it deteriorates to moderate ecological status downstream of Raharney. Under the obligations of the Water Framework Directive, it is required that all water bodies achieve good ecological status. Storm water from roofs and clean yards will discharge to field drainage/soak pits via a storm water collection system. The storm water discharge points will be regularly checked, inspected and monitored. There will be no discharge of any soiled water or any effluent from the site to any watercourse or to groundwater.

The existing farm site in question is 2.2 ha and it is located in a rural area within the townland of Joristown Upper. Access to the site is via an existing, private access road. The site is 1.9km north-east of Killucan and 1.2km west of Raharney.

The land-use surrounding the site is predominantly agricultural and improved agricultural lands (arable and grassland) is the dominant habitat. Other habitats represented locally include arable lands, hedgerows and treelines. There are also a number of surface water features close to the site, including the River Deel, which is 1.2km east of the site.

The activity on the farm is, and will be, a pig farming activity appropriate to the area and consistent with the development plan for Co. Westmeath. The site is well serviced by the current road infrastructure and is accessed by a local road which subsequently connects with the Regional Route the R165 and from there to the National Route, the N4 / M4 Mullingar-Dublin Road. The activity will be carried out on the existing site of and within the existing structures and will use the existing access routes and site infrastructure.

The topography of this site means that the existing farm is integrated into existing ground levels. The location of the activity, in an established and long existing site, and screened by the existing hedgerows together with the external finishes and existing/proposed landscaping will mean that the development is well integrated into the existing landscape/farmyard.

The site is located c. 1.2 Km from the closest Natura 2000 site – The River Boyne and River Blackwater SAC 002299

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

The existing farm has been well maintained and upgraded and it has been ensured that only efficient systems of pig husbandry are in operation on this farm, to ensure that the highest standards of animal welfare and environmental protection are maintained. All existing systems are well maintained and serviced so as to ensure that they are operating to maximum efficiency.

The existing developments are of a steel / concrete construction on a mass concrete manure storage tank, with a slatted floor. Walls are plastered blockwork / concrete, and the roof cladding is box profile juniper green, cement fibre sheeting, or similar. The houses are thermally insulated with a computer controlled and artificial lighting. Pigs are housed on slatted floors, with manure storage tanks underneath. Automated feeding and drinking systems are proposed. A nipple drinking system is used in the houses as this is the most efficient type of drinking system and will ensure that there is minimal wastage.

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

The production process to be accommodated by the licence review involves the breeding, rearing and fattening pigs to market weight. The young are born in the farrowing rooms. Piglets remain suckling on the sows for an average of 28 days. At day 15, creep is introduced in minute quantities as the sow's milk quality begins to decrease. It is also important to build up the piglet's ability to receive solids, thus preparing them for weaning onto a diet of solid feed. The suckling/lactation period for the sow is 28 days on average. The sow is then weaned back into the service area where she is fed ad lib until she returns to cycle approximately 5-7 days later. Gestation period being 114-116 days, the pre-farrowing sow is moved to the farrowing rooms 6-7 days before parturition.

At weaning the pigs are moved from the farrowing rooms aged 30 days, weighing approximately 7/8 kg, to the weaner rooms. The piglets remain here on a complex diet until 85 - 90 days of age. They then leave this area and are to move to the finishing houses at circa 30 - 40 kg, where they are reared until they reach market weight.

The pig manure / organic fertiliser from this farm is/will be removed off site and allocated to customer farmers for use as an organic fertiliser in accordance with the requirements of S.I. 605 of 2017, as amended. The estimated manure production as a result of the activity will be a total of c. 8,112 m<sup>3</sup> / annum.



Soiled water from the licensable activity where applicable, is collected in the manure storage tanks and dealt with as organic fertiliser in accordance with S.I. 605 of 2017, as amended, and account has been taken on same in the calculations.

Emissions to air from the site are and will be small, and are attributable to the animals that are on the site. The odour associated with a site of the proposed capacity does not and will not cause significant annoyance and will not interfere with amenity outside the boundary of the site. The activity will have no significant impact on the local environment and same is supported by the site specific odour impact assessment carried out for the farm.

Well maintained, properly ventilated pig farms with modern manure removal will minimise any potential adverse odour impact and will minimise odour outside the confines of the site/immediate area. Transient increases in odour emissions may be associated with manure removal from the site. The activity will have no significant impact on the local environment and same is supported by the site specific odour impact assessment carried out for the farm.

A small proportion of the animals maintained on the farm die prematurely. These carcasses are and will be stored in a covered sealed container on site, awaiting collection by an authorised contractor. College Proteins is an authorised contractor who regularly remove these carcasses, and any other such material to an authorised Animal By-Products plant at Nobber, Co. Meath, in compliance with existing requirements.

The potential of the activity, either independently and/or when assessed cumulatively with other developments in the area, for either direct or in-direct, short, medium, or long term, secondary or transboundary impacts on environmental parameters, be they positive or negative, is negligible, if any, because:

- of the nature and scale of the activity,
- wastes are removed from the site by authorised waste contractors for either disposal or use elsewhere,
- all organic fertiliser is to be removed off site to customer farmers for use in accordance with S.I. 605 of 2017, as amended,
- Additional mitigation measures to be included in the operation of the farm including the use of low protein diets across the farm and the frequent removal of manure off-site from the production pigs, to minimise any potential impacts.

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

## 1. Introduction and Development Context

..... Please refer to Original E.I.S. Section 2 - Description of Project .....

This Environmental Impact Assessment Report (E.I.A.R.) was compiled following an Environmental Impact Assessment (E.I.A.) of a activity on, an existing pig rearing farming enterprise, at Jorristown Upper, Killucan, Co. Westmeath, operated by the applicant, Clondrisse Pig Farm Ltd.. The E.I.A.R. is to be submitted to the E.P.A. in support of an application for a licence review application to incorporate the housing of production pigs (3,318 No.) on the farm into the licensed activity, on an existing pig farm at Jorristown Upper, Killucan, Co. Westmeath. Please refer to the site plan contained in Appendix No. 2 and the drawings contained in Appendix No. 3.

EIA requirements derive from Council Directive 85/337/EEC (as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC) and as codified and replaced by Directive 2011/92/EU of the European Parliament and the Council on the assessment of the effects of certain public and private projects on the environment and as amended in turn by Directive 2014/52/EU. This E.I.A.R. has been completed with regard to the aforementioned directives and notwithstanding that planning permission has previously been granted for the licensable activity, with reference to the Planning and Development Act 2000 (as amended), Planning & Development Regulations 2001, as amended, and the Protection of Environment Act 2003. It is submitted to provide information that may be helpful to the E.P.A. in making its decision on the licence review application for the activity, and to complement the E.I.S. previously completed for this development, as per Schedule 5 Part 2 of the Planning and Development Regulations 2001, i.e. Class 1(e) (ii) activity, "Installations for intensive rearing of pigs not included in Part 1 of this Schedule which would have:

- **more than 2000 places for production pigs (over 30 Kilograms)** in a finishing unit,
- more than 400 places for sows in a breeding unit, or,
- **more that 200 places for sows in an integrated unit.**

### 1(1) Description of the Site and the activity

- **1(1)(1) Scale of existing and activitys.**

The **existing pig farm** (as licensed by the E.P.A under Licence Ref. No. P0975-01 – See Appendix No. 7) and is licensed to operate as a c. 625 Sow breeding pig farm, and the current licence review is to accommodate the housing of production pigs (c. 3,318 No.) on the farm in addition to the current licensed numbers/activity. This farm has the capacity to house all of the breeding stock (i.e. sows, served gilts, maiden gilts and boars) and all of the pigs born on the farm until they reach market weight. The existing E.P.A. Licence covers the extent of the entire farm structures, but the licence review is required to incorporate the housing of production pigs within the scope of the licence. The licence review is sought to accommodate the rearing of pigs to market weight, within existing facilities already available on the farm.

The **activity** will involve the breeding and rearing of pigs to market weight.

Stock numbers on the farm be will unaltered from that previously approved for this farm by Westmeath Co. Co. and unaltered from that as detailed in the original EIS as approved by Westmeath Co. Co.. As a result there will be no intensification of activities on the farm as there will be no increase in the volume of organic fertiliser produced on the farm, over and above that as previously detailed, in the E.I.S.

To properly, address the concerns of the E.P.A.. as detailed in correspondence to the applicant dated 11/12/2019, and to assess the impact of the activities it was determined that this would be best addressed by the completion of an Environmental Impact Assessment Report, to appropriately address and describe, both the nature, and the potential impact (if any) of the overall development, and the interaction of this site with other aspects of the environment, even though there is no overall net intensification of activities on the farm from the original E.I.S.as approved by Westmeath Co. Co. This E.I.S. is included as Appendix No. 1.

The proposed licensable activity, with no alteration to existing operational capacity from that as detailed in the original E.I.S., is in excess of the threshold as detailed in Schedule 5 Part 2 of the Planning and Development Regulations 2001, i.e. Class 1(e) (ii) activity, "Installations for intensive rearing of pigs not included in Part 1 of this Schedule which would have:

- **more than 2000 places for production pigs (over 30 Kilograms)** in a finishing unit,
- more than 400 places for sows in a breeding unit, or,
- **more than 200 places for sows in an integrated unit.**

This farm was licensed as an 625 sow unit in 2017, Licence No. P0975-01 issued by the E.P.A. It is the applicant's intention to operate the site as a fully licensed and fully integrated unit, taking into account modern production parameters and performance, and the licence review is sought to accommodate this activity.

Pig farming activities are the only agricultural activities to be carried out on this site by the applicant. The activity will operate along similar management principles and production processes and will be carried out, to ensure compliance with the Nitrates directive (as implemented by S.I. 605 of 2017, as amended, animal welfare legislation, and to ensure that this farm operates at maximum, efficiency, herd performance and environmental standards, while achieving modern performance and production criteria. This activity is located in the townland of Joristown, fully contained within the existing site and facilities, albeit that off-site organic fertiliser storage facilities are to be utilised by the licensee.

**1(1)(2) Planning/Licensing History**

The subject site is an existing pig farm and the existing farm has developed over a long number of years. Site Location Maps are contained in Appendix No. 2.

**A. Planning Permission**

Planning permission has been granted by Westmeath County Council on the subject site, and this permission is summarised as follows:

<u>File Number</u>	<u>Decision Date</u>	<u>Decision Code</u>	<u>Applicant Name</u>	<u>Development Address</u>	<u>Development Description</u>	<u>Local Authority Name</u>
<a href="#">065492</a>	22/11/2006	CONDITIONAL	MARY MURPHY	JORISTOWN KILLUCAN	DEMOLISHING EXISTING DRY SOW SHED AND TO RECONSTRUCT A NEW DRY SOW SHED TO COMPLY WITH S.I. 048 OF 2...	WESTMEATH CO. CO.
<a href="#">095022</a>	25/03/2009	CONDITIONAL	MARY MURPHY	JORISTOWN UPPER KILLUCAN	A REVISED LOCATION FOR DRY SOW SHED AS PREVIOUSLY GRANTED UNDER PLANNING REF. NO. 06/5492 - THE DEVE...	WESTMEATH CO. CO.
<a href="#">112091</a>	19/06/2012	CONDITIONAL	Mary Murphy	Joristown Piggery Joristown Upper Killucan Co. Westmeath	Full planning permission to extend existing pig rearing facilities to accommodate an extra 3318 pigs...	WESTMEATH CO. CO.

Table No. 1: Record of planning permission applications.

**B. E.P.A. Licence**

A licence was granted to this farm on 22<sup>nd</sup> February 2017. Same is included as Appendix No. 2.

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

The site/existing farm is located centrally in Co. Westmeath, 1.9km north-east of Killucan and 1.2km west of Raharney, just off the R156 Regional Road and c. 8km from the N4 National Route M4 Motorway, at National Grid Reference E258758 N252990. The site comprises an overall area of c. 2.2 hectares owned by the applicant. Pig farming activities are the only agricultural activities carried out by the applicant on this site.

The activity on this site is, and will be, a pig farming activity similar to the current activities on site and consistent with the development plan for Co. Westmeath. The existing site, while remotely located is serviced by a good road network, to be accessed by a local road, which subsequently connects with the R165 and then the National Route N3 Westmeath - Dublin Road.

This proposed site is accessed via an existing entrance that currently services the existing farmyard complex and same is set back c. 350m from the public road.

The location of this farm yard is identified on the location maps / site Plan included in Appendix 3, which also indicates the extent of the land owned by the applicant at this location. The proposed site is compact, and is designed to be safe, secure and efficient in operation.



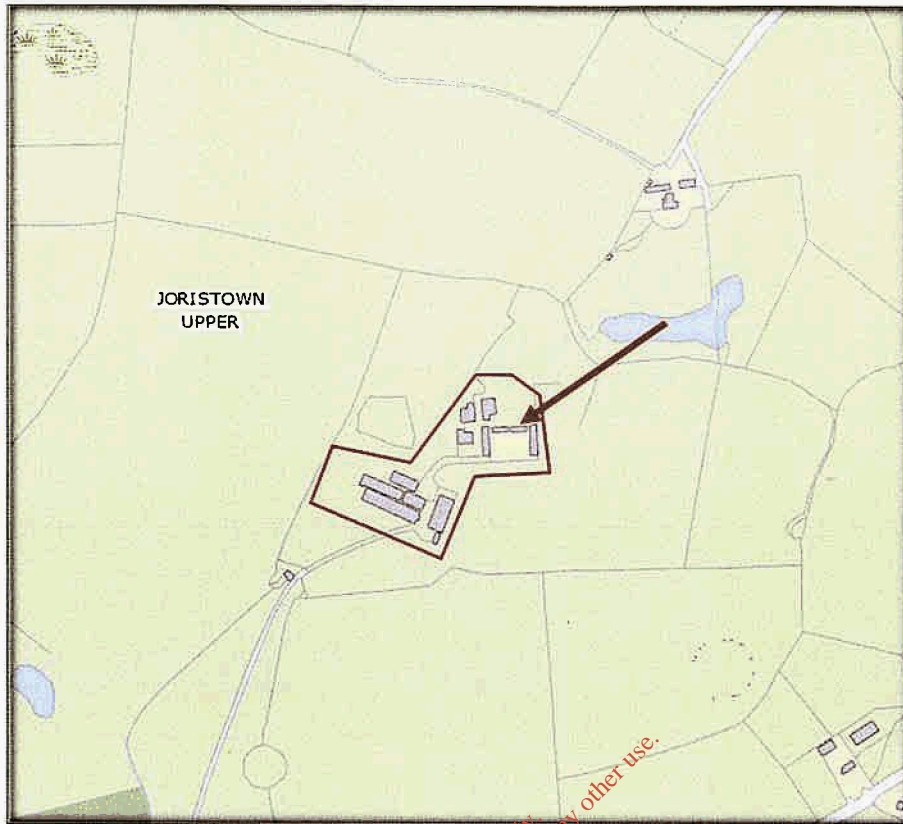


Fig 1 & 2 Site Location maps. Reproduced by CLW Environmental Planners Ltd under O.S. Licence No. EN0004019

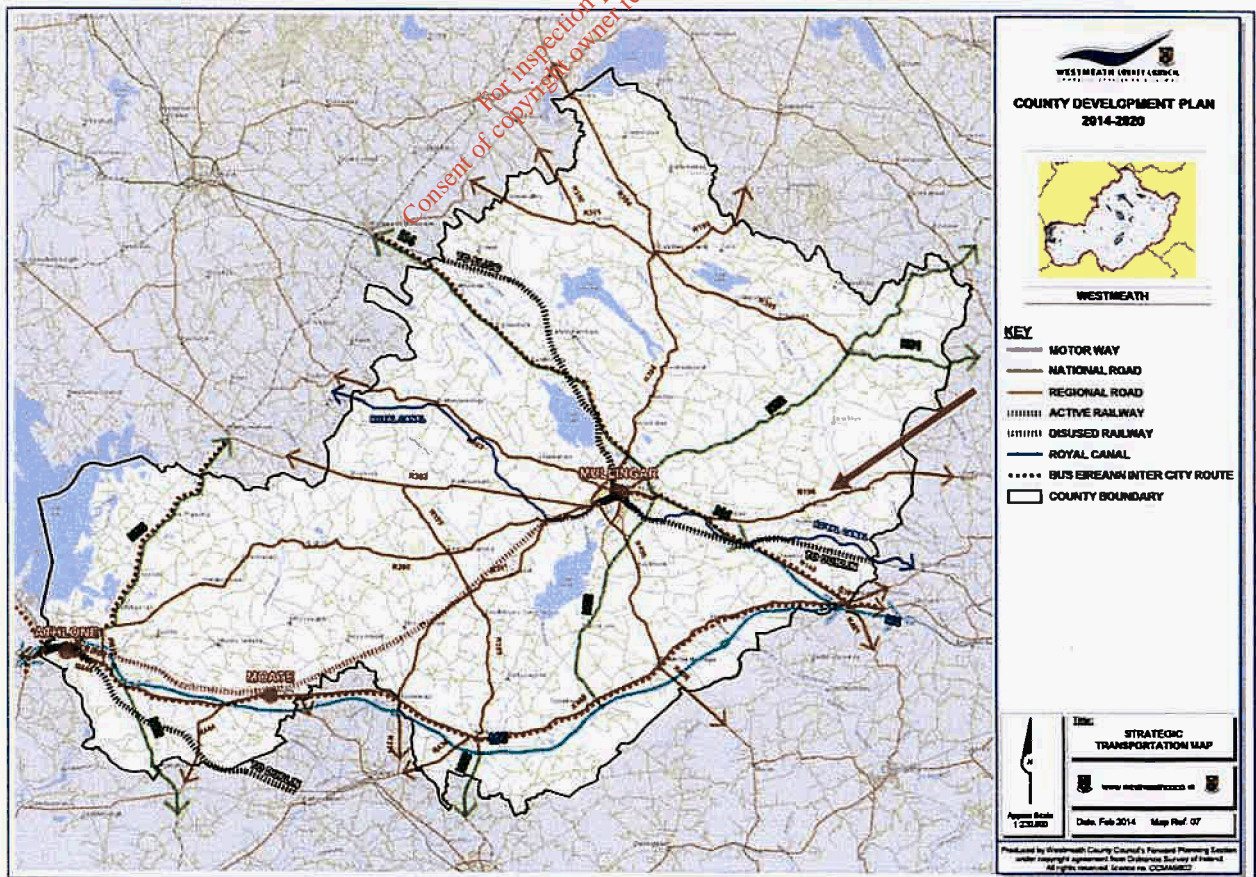


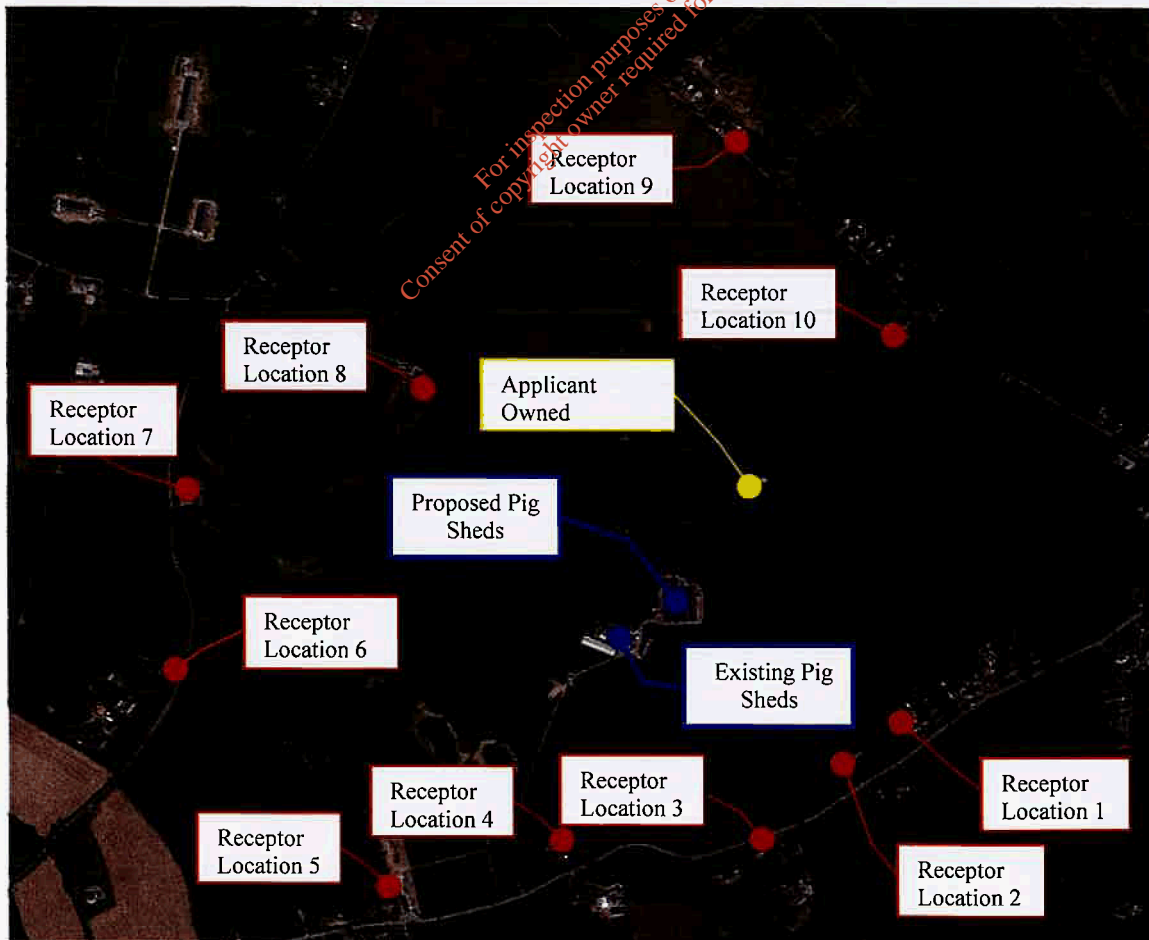
Fig. 3 Strategic Transportation map – Westmeath Co. Development Plan

There is one dwelling located c. 150m northeast of the site (owned by the applicant) are no additional third party dwellings located within c. 400 metres of the activity.

Location	Description*	ING Grid Co-ordinates	Approx. distance to pig shed (m)
1	Property to the SE	259267 252824	455
2	Property to the SSE	259144 252746	400
3	Property to the South	258983 252602	445
4	Property to the SSW	258604 252601	470
5	Property to the SW	258268 252500	750
6	Property to the West	257849 252930	960
7	Property to the NW	257873 253275	940
8	Property to the NNW	258334 253480	595
9	Property to the North	258942 253959	860
10	Property to the NE	259256 253583	635

Table No. 2: Location of 3<sup>rd</sup> Party dwelling closest to the site.

Figure No. 4: Map of 3<sup>rd</sup> Party dwelling closest to the site.



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

The site is typical of the local topography of the area and is slightly below the level of the adjoining road, however the activity will be screened from view by the existing hedgerows/landscaping, and/or integrated with same. Any additional proposed landscaping to be completed in line with Department of Agriculture, Food and The Marine Specifications. The subject site topography is similar in nature to the general topography in this area.

- **1(1)(5) Physical description of the activity**

..... Please refer to Original E.I.S. Section 2.3.....

As the existing housing has been well designed and constructed the most efficient systems are in operation on this farm. All systems are well maintained and serviced so as to ensure that they are operating to maximum efficiency.

This farm operation will ensure that a high standard of animal welfare and environmental protection are achieved by this farm enterprise. The farm is situated in a rural location where agriculture is the main industry. The activity is not visible from any major road or housing complex. The pig farm buildings are well integrated into the site.

The objective of this application is to ensure that this farm can operate productively and economically into the future and in line with E.P.A. and Department of Agriculture, Food and The Marine requirements, and, environmental and animal welfare regulations, and to maximise animal welfare, bio-security, performance and productivity on the farm.

This farm is licensed to operate as a c. 625 sow breeding pig unit, developed on a site of c. 2.2 Ha. In order to ensure that this farm complies with all its requirements a licence review was sought to licence this farm as a fully integrated pig farm, with no overall increase in stock/intensification/organic fertiliser production, compared to that previously approved for this farm by Westmeath Co. Co., and as outlined in the original E.I.S.. This will allow the farm to make maximum use of the facilities and skilled labour on the farm and allows the operation of the farm to be more efficient and sustainable in the long term.

The licensable activity which is the subject of this application can be fully accommodated within the existing pig farm structures, and as highlighted on the accompanying site layout drawings (Please refer to Appendix No. 10) , with the exception of additional ancillary off-site manure storage facilities, located off site but available to the applicant.



- **1(1)(6) Operation of the Activity**

- **Operating Hours**

Staff operating hours are, and will be, primarily 06.00 to 18.00 Monday to Friday and 07.00 to 13.00 on Saturday and Sunday, however automatic feeding and ventilation systems will be operating outside of these hours. This farm is operated in such a way that only essential activities are carried out outside of these hours. The pig farm manager/owner, Mr. William Murphy will be available at all times should any emergency arise regarding this farm. In addition Mr. Murphy will retain overall responsibility for the day to day running of the farm.

- **Production**

This c. 625 sow integrated farm will produce pigs c. 325-350 pigs / week and reared on the farm until they reach market weight. All stages of production are to be completed on the farm, from service right through to market weight, (or alternatively for a portion of the pigs produced, selection as replacement breeding stock).

In order to ensure that the maximum performance is achieved from this farm with the minimal amount of inputs significant attention is paid to the genetics of the pigs produced. The programme to be carried out on the farm will ensure that only pigs with the top performance in terms of growth rate and feed efficiency are produced. High health status is, and will remain, a priority on this unit. The proposed management team will be highly trained and experienced, and this will be complemented with additional personnel where required. All in – all out movement of pigs is/will be practised on this farm. Each age group of pigs have a different level of immunity and even in high health status herds it is important not to mix pigs of different age groups. Hygiene routines are carefully planned and monitored. The rooms will be washed and rested between batches. Hygiene and health status on the farm will be improved wherever possible.

The applicant is committed to providing a system on-site that ensures adequate time for cleaning and resting the rooms between batches. One of the objectives of the activity is to allow the highest standards of hygiene and washing routines. Adequate accommodation will mean that there is more time allowed between emptying the weaner/finisher accommodation and re-filling of these rooms with the next batch of pigs. This will allow more comprehensive washing, soaking, cleaning and drying out. The activity has been designed to facilitate this improved hygiene and washing routine at the proposed stock levels. Pens will be adequately soaked prior to washing to reduce water and energy usage associated with this practice.

- **Feeding**

The pigs will be fed with wet/dry feeders, whereby the feed is supplied to the pigs dry, but there is a water supply to the feeder allowing the pigs access to feed and water at the same time. Feed will be supplied to the farm from a specialist feed supplier (such as Ballynagall Feeds etc.).

Ad libitum water is supplied to the pigs via water nipples as per welfare legislation. Feed to be used is calculated on an industry standard average feed consumption on the farm on an annual basis divided by the number sows/served gilts on the farm giving an estimated figure of c. 7-8 tonnes per sow/served gilt, /annum.

➤ **Water supply and use.**

Water is to be supplied from two private wells, one located on-site, and, a second located off-site (location as per site plans included in Appendix No. 10) and/or the local Group water scheme. Water is to be stored in an over-ground water storage tank(s) with a capacity of @ least 24 hours supply. The estimated water used per annum will be c. 10,000 m<sup>3</sup>. All animal drinking appliances are regularly maintained to ensure that there is no leakage to the slurry storage structures.

Water on this pig farm is used for the following:

- (a) **Drinking water for livestock.**
- (b) **High pressure wash down systems (3,000 psi)**

➤ **Heating and Ventilation**

Energy supply to the farm will be an electric 3-phase supply @ 220 and 380 volts. A standby generator is provided in the event of a disruption to the power supply.

(a) **Heating**

**Farrowing House:** - Piglets are born into an environment of 20 - 24 degrees centigrade; but require a temperature of > 30 degrees centigrade. This is supplied by under floor heating with electric heat pads. Weaker pigs may receive extra and beneficial heat from an infrared lamp, hung over them.

**1<sup>st</sup> Stage Weaner House:** - These rooms are to be artificially heated with electric heaters. The floors are to be slatted with plastic slats. The air temperature and freshness is to be climatically controlled by sensors and computers.

**Gilt/Sow Houses/2nd Stage Weaner and Finisher:** - These houses receive / will receive no artificial heating.

(b) **Ventilation**

All ventilation on this farm is/will be Computer controlled mechanical ventilation.

➤ **Housing**

The proposed houses are of A-roof design with a height of c. 4 meters above floor/slat level.

As previously detailed the licence review is to facilitate the farm to operate at the scale as previously approved by Westmeath Co. Co. There will be a maximum of 625 Sows (including served Gilts), replacement breeding stock and progeny on the farm, up to market weight.

Additional space is proposed to be provided to allow for the washing and drying routines to be carried out, and to provide a number of isolation/recovery pens for any sick/injured animals. Down time between batches of up to 7 days has been recommended by the farm veterinarian to maintain high health status in the herd.

All ventilation on this farm is/will be Computer controlled mechanical ventilation.

➤ **Manure Storage Structures and capacities**

All pigs are/will be housed in slatted houses with under house manure storage tanks. The slurry is collected directly through these slatted floors and stored in tanks located below slat level. The manure storage facilities associated with the proposed houses are of mass concrete to a specification that ensures a watertight seal, i.e. Department of Agriculture, Food and The Marine, S123, Minimum Specification for Bovine Livestock Units and Reinforced Tanks.

..... Please refer to Original E.I.S. Appendix No. 2 .....

Which contains a table indicating proposed manure storage capacity on the farm. It also includes information showing the total manure storage capacity in each house and the net manure storage capacity in each house after the required freeboard allowance has been removed. A freeboard allowance of 200mm has been allowed on all covered underground manure storage tanks, and 300mm on all uncovered tanks, in accordance with S.I. 605 of 2017, as amended.

The manure storage capacity on the farm will provide c. 66 weeks months storage capacity. Furthermore off-site storage facilities are available to the applicant (owned by a director of the applicant) and these will be used to facilitate the frequent removal of organic fertiliser from the production pig houses in order to comply with the detailed as laid out in the Odour and Ammonia Impact assessments and to comply with BAT requirements, as detailed in Commission Implementing Decision (EU) 2017/302 of 15 February 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs;

**1. BAT CONCLUSIONS FOR THE INTENSIVE REARING OF PIGS**

**Ammonia emissions from pig houses**

BAT 30. In order to reduce ammonia emissions to air from each pig house, BAT is to use one or a combination of the techniques given below. **(Selected Technique Shown Highlighted)**

Technique <sup>(28)</sup>	Animal category	Applicability
a One of the following techniques, which apply one or a combination of the following principles: (i) reduce the ammonia emitting surface; (ii) increase the frequency of slurry (manure) removal to external storage; (iii) separate urine from faeces; (iv) keep litter clean and dry..		
1.A vacuum system for frequent slurry removal (in case of a fully or partly slatted floor).	All pigs	May not be generally applicable to existing plants due to technical and/or economic considerations.

➤ **Process of Production**

The production process involves / will involve breeding and rearing pigs to market weight. An average of 325-350 pigs per week are to be produced on the farm and reared to market weight.

The young are born in the farrowing rooms. Piglets remain suckling on the sows for an average of 28 days. At day 15, creep is introduced in minute quantities as the sow's milk quality begins to decrease. It is also important to build up the piglet's ability to receive solids, thus preparing them for weaning onto a diet of solid feed. The suckling period for the sow is 28 days on average. The sow is then weaned back into the service area where she is fed ad lib until she returns to cycle approximately 5-7 days later. Gestation period being 114-116 days, the pre-farrowing sow is moved to the farrowing rooms 6-7 days before parturition.

At weaning the pigs are moved from the farrowing house aged 28 days, weighing approximately 7/8 kg, to the 1<sup>st</sup> stage weaner houses, and from there to the 2<sup>nd</sup> stage weaner houses. The pigs remain here for 8-9 weeks, on a complex diet until they reach c. 35 kg, at which time they are to be moved to the finishing accommodation where they remain for 10-12 weeks until they reach market weight).

### ➤ Procedures of Production

The applicant is currently approved under the Bord Bia approval system and other industry quality assurance programme(s). The daily procedure follows / will follow the Bord Bia Code of Practice for pig welfare and consists / will consist of the following procedures:

#### *Dry Sow/Gilt House(s).*

- \* ensure all sows/gilts have adequate feed and water
- \* check health status and treat accordingly
- \* check sows/gilts returning to cycle after service
- \* scrape excess faeces from behind sows/gilts.

#### *Farrowing House(s).*

- \* ensure all sows have adequate feed and water
- \* check the health status of this area and treat as required.
- \* check house temperature and heat pad temperature
- \* check and record births and deaths.
- \* remove excess faeces, farrowing debris, dead and mummified pigs at the time of farrowing for hygiene purposes.
- \* manually remove all faeces at weaning to reduce water waste at power washing

#### *Weaner and Finisher House(s).*

- \* ensure all pigs have adequate feed and water
- \* check the health status of this area.
- \* check temperature and ventilation rates
- \* check for water wastage via drinkers

*Finishing House(s)* - as for weaners above. It is also important to take note of appropriate withdrawal periods of all medicines used and keeping accurate records of all pigs treated.

## 2. Scoping of Environmental Impact Assessment

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

- Geological Survey of Ireland.
- Met Eireann.
- Central Fisheries Board.
- Office of Public Works.
- Department of Agriculture, Food and the Marine
- Department of the Environment, Community and Local Government
- National Parks and Wildlife Service
- Teagasc, Johnstown Castle.
- Environmental Protection Agency
- Richard McCabe, Consulting Engineers Coolure, Coole, Co. Westmeath
- Noreen McLoughlin, MSc, MCIEEM, Whitehill Environmental
- Irwin Carr Consulting. 7 Osborne Promenade, Warrenpoint, Co. Down, BT34 3NQ

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

- *The requirements of the EU Directive, the European Communities (Environmental Impact Assessment) Regulations, as amended, and the Local Government (Planning and Development) Regulations, 2001, as amended, and The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).*

- Draft Revised Guidelines on the Information to be Contained In Environmental Impact Assessment Reports published by the Environmental Protection Agency in September 2015.
- Draft Advise Notes for Preparing Environmental Impact Assessment published by the Environmental Protection Agency in September 2015.
- The requirements of Westmeath County Council, as elaborated in the current *County Development Plan 2014 - 2020*.
- The likely concerns of local residents and other third parties.
- The nature, location and scale of the proposal.
- The existing environment, as well as any vulnerable or sensitive features and current uses.
- The likely and significant impacts of the activity on the environment.
- Available methods of reducing or eliminating undesirable impacts.
- Environmental Impact Statement For Piggery Extension at Joristown Upper, Killucan, Co. Westmeath. (Andy Dunne – November 2011)

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

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

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

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

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

- Potential impacts if the revisions to the licensed activity sought by the licence review are not granted.
- Potential impacts during operational phase of activity.

	NO DEVELOPMENT		OPERATIONAL PHASE
Population / Human Health	≈		✓✓
Biodiversity (Flora)	≈		≈
Biodiversity (Fauna)	≈		≈
Land and Soil	≈		✓✓
Water	≈		×
Air	≈		×
Climate / Climate Change	≈		≈
Ambient Noise	≈		≈
Cultural Heritage	≈		≈
Landscape	≈		≈
<b>Material Assets</b>			
▪ Traffic	≈		×
▪ Land Use	≈		✓
▪ Employment	×		✓

**Key:**

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



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

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

This is considered in some detail later in this statement.

**2(2) Project Type as per EPA Guidelines**

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

Under *Project Type 13* the EPA Guidelines outlines the information to be contained within the Development Description and the description of the Environmental Effects. Appendix No. 8 includes the summary provided in these guidelines for this *Project Type 13*. It outlines possible mitigation options for this type of development. The Guidelines describe the principle concerns likely to arise as stemming from the issues of manure handling (mainly slurry/manure) and odours. The significance of impacts is very much a factor of the site's proximity to sensitive receptors although it highlights that such projects frequently dispose of wastes at locations which are not adjacent to the animal rearing operations.

While these Guidelines remain in a Draft format, and they relate to the preparation of an EIS (forerunner of E.I.A.R.), consideration has been given to these in the preparation of this E.I.A.R. Details of Project Type 13 from the EPA Guidelines have been included as Appendix No. 8.

### 3. Description of Reasonable Alternatives

..... Please refer to Original E.I.S. Section 4 - Alternatives .....

#### ● **3(1) Alternative site**

Since this E.I.S. is concerned with a licence review application for existing farm, the question of an alternative site(s) does not arise, to the same extent as if the applicant were looking to develop a greenfield site. Pig farming activities have been carried out at this site since at least the nineteen seventies.

It is intended to review the existing licence to incorporate the housing of production pigs on the farm into the licence to help ensure that this farm can operate in a competitive and viable manner.

The objective of this development is twofold.

➤ **Primarily To utilise the existing resource, i.e. the existing pig farm site(s).**

The existing pig farm site, provides a valuable resource in that it is an already developed site with all of the required access, services etc. laid on.

➤ **Secondly, To develop a modern pig farm that complies with Westmeath Co. Co., E.P.A. and legislative requirements**

It is intended that this licence review will ensure that this farm can be operated by the applicant as efficiently as possible, in a welfare compliant, environmentally friendly and sustainable manner. It is currently proposed to operate this farm as a licensed c. 625 (including served Gilts) Sow integrated unit, as per the scale of activity granted permission by Westmeath Co. Co.

This site was chosen by the applicant for the following reasons,

- Existing Pig farm located on the site and area required for the activity owned by and/or available to the applicant.
- The consolidation of the farm will allow for a more efficient and sustainable activity on the farm.
- Suitable area to accommodate the activity.
- Existing electricity supply on the farm.
- The site was in a rural location with a relatively low density of housing in the area.
- The required infrastructure such as access, water, power, already laid on.
- Significant local demand for organic fertiliser from the existing farm.
- Skilled staff available.

Furthermore development on an alternative site does not address the fundamental purpose of this application, i.e. the incorporation of the housing or production pigs within the available facilities within the licensable activity.

### 3.2 Alternative Layout and Design

As the licensable activity can be accommodated within the existing licensed site and existing facilities the consideration of an alternative layout/design is not applicable.

### 3.3 Alternative Process's Considered

The Teagasc pig advisory service was set up in the early eighties and Clondrisse Pig Farm Ltd. used this service as an integral part of planning this proposed farm development.

The processes to be carried out in the activity will be similar in nature to the previous activities on the farm. Historically alternative systems of production were considered however, due to the land type and long winters outdoor pig farming was dismissed and slatted underground slurry storage was adopted in preference to straw-based English systems of production.

Utilisation of manure is carried out by allocating manure to those customer farmers with a recognised need for additional fertiliser. The machinery used for this activity has been changed and modernised over the years to make this process more environmentally friendly. To this end all farmers are advised that slurry tankers should be fitted with low trajectory splash plate.

There is no other satisfactory economic or environmentally friendly alternative process for commercial pig production under Irish climatic conditions. The applicant could look at operating this farm as a larger breeding unit to utilise the available facilities however this would require additional accommodation off-site to rear the progeny and same is not currently available to the applicant.

### 3.4 Alternative Management of By-products

Application to land is the one practical economic means of utilising the nutrients in pig manure. Organic fertiliser from this farm is used in the local area as an alternative to imported artificial fertiliser. The method of manure spreading proposed (i.e. low trajectory splash plate), is very practicable and should minimise odour emission from manure. Existing demand for organic fertiliser in the area is well in excess of that which would be produced by the activity as observed by the applicant in practice over the last number of years. This will result in a significant economic saving on those grassland /tillage farms that utilise it as a source of fertiliser as opposed to imported, energy demanding chemical fertiliser while at the same time returning additional important trace elements to the soil not provided by the chemical substitutes.

Trial work conducted by EOLAS on alternative disposal/treatment methods for pig manure was carried out in the Sheelin area approximately 20/25 years ago. This project failed to establish an alternative method for manure treatment that was viable at a commercial level.

C.L.W. Environmental Planners Ltd. in their Enterprise Ireland funded feasibility study entitled, Centralised Anaerobic Digestion in County Cavan, has extensively researched alternatives to land application. This study concluded that under the economic, environmental and grants support climate that prevailed at that time, there was no economic alternative to land application.

Teagasc have previously completed a study (led by Peadar Lawlor, Teagasc, Moorepark, and presented at the Teagasc Pig Farmers Conference 2011) which looked at a number (5) of treatments/partial-treatments for pig manure and compared them to the traditional practice of utilising this organic fertiliser to fertilise land. This study concluded that, at that time, there was no other viable alternative for the use of pig manure. Same has not changed in the intervening period.

Organic fertiliser from the production pigs is to be moved off-site to off site storage on a regular basis to minimise any potential emissions from this farm as detailed in the Ammonia Impact Assessment report. These additional facilities are already available to, and under the control of the applicant.

There is no other suitable alternative for the disposal of animal carcasses and tissue waste or veterinary waste.

#### 4. Environmental Assessment

##### 4(1)(1) Description of the physical characteristics of the activity and the land use requirements during operation.

The physical characteristics of the activity will comprise;-

- An existing entrance onto a public road.
- Maintain existing hedgerow plantations along the site boundary, where applicable. Additional landscaping/hedgerows to be completed where necessary.
- All manure is moved off site to customer farmers and recorded/reported in line with the requirements of S.I. 605 of 2017, as amended.
- The activity is of a form, design, colour and materials that are sympathetic to their surroundings, and similar in nature to the existing structures. The pig houses are of a concrete/steel construction on mass concrete manure storage tanks. Walls are plastered blockwork construction. The roof cladding is box profile juniper green cladding, or cement fibre sheeting.
- Underground, mass concrete manure storage tank in which organic fertiliser is collected and stored pending, transfer to off-site storage or application to the customer farmers.

All of the structures on the site are screened or blended in to the surrounding landscape by the external finish of the structures, and existing landscaping/hedgerows where applicable.

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

The production processes which will take place on the existing site is:-

- The management, feeding and care of the animals.
- The despatch of all carcasses and other solid waste materials from the site for disposal or recovery at agreed/approved sites and
- The collection of all organic fertiliser (manure and soiled water) generated within or around the site in mass concrete manure collection tanks pending, transfer off-site to ancillary storage and/or application to customer farmers.

The applicant is approved under the Bord Bia approval system, as per the Pig Quality Assurance Scheme (PQAS). As part of this approval the daily procedure will follow the Bord Bia Pig Quality Assurance Scheme Producer Requirements.

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

The main input materials used in the licensable activity are water and animal feed. Water for stock and for washing is to be sourced from an 2 wells (one on site and one off site as per the drawings contained in appendix 10) with a back up supply from the group water scheme. Estimated water use will be c. 10,000 m<sup>3</sup> per annum for the activity.

Pig feed will be specifically formulated rations, formulated and prepared by a specialised pig feed supplier such as Ballynegall Feeds etc.. All feeds used will be appropriate to the nutritional requirements of the animals, while at the same time minimising nutrient excretion. There are 6-8 rations used throughout the production cycle, to match the pigs nutritional requirements at each stage of production an minimise nutrient excretion. Please refer to additional information contained in Appendix No. 9. Total feed consumption/annum is c. 6000 t.

Electricity would be used to power all the processes and services on the site. A back-up generator is available in the event of a power failure. Electricity usage =500-600 KwH/sow place.

Oil/Diesel is to be used for the back up generator.

**4(1)(3) An estimate, by type and quantity, of expected residues and emissions (including water, air and soil pollution, noise vibration, light, heat and radiation) and quantities and types of waste produced during the construction and operation phases.**

The expected residues and emissions that will result from the construction / operation of the activity are referred to below. The proposed operational residues/emissions will be unchanged from the original EIS as there is no increase in scale and/or operational practices on the farm from that as approved by Westmeath Co. Co.

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

**Supplementary heating** is to be provided by electric and/or hot water heating systems in the weaner and farrowing accommodation. The amount of energy used will vary depending on the size of the pig and outside climatic conditions. Energy efficiency will be a key factor in modern farming and modern pig heating systems are considerably more efficient than those used in older pig houses. The amount of energy required has been/will be significantly reduced due to the high insulation standards.

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

**Dead animals and animal tissues** are accumulated in a sealed leak proof container on site for collection by College Proteins at 1 - 2 week intervals for transport to an authorised Animal By-Products facility at Nobber, Co. Meath. It is intended that the frequency of collection will be in line with Westmeath Co. Co. / E.P.A. requirements in this regard.

**The organic fertiliser / pig manure** from this farm is/will be removed off site to customer farmers for use as an organic fertiliser. This organic fertiliser is not considered a waste product and is to be utilised as an organic fertiliser in line with S.I. 605 of 2017, as amended. The applicant records the details of all customer farmers utilizing organic fertiliser from his farm in accordance with the relevant regulations. A list of the herd numbers of the farmers utilizing organic fertilizer from this farm (based on the 2020 record 3), has been provided in Appendix No. 9. As previously detailed there will be no increase in organic fertiliser production as a result of the activity from that as approved by Westmeath Co. Co., and as detailed in the Original E.I.S.

The annual estimated production of organic fertiliser/manure from the farm is calculated in Appendix No. 2 of the E.I.S., and same remains unchanged

Soiled water from the existing and activity will be collected with pig manure and treated as organic fertiliser. This organic fertiliser is and will be allocated to the customer farmers in accordance with the Nitrates Regulations.

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

**Noise** generated in the proposed/existing development in the site will not exceed legal limits at the site boundary. Extensive experience with the existing site and a large number of other existing sites would not suggest that the activity is likely to have any adverse noise impact. There would not be any source of significant vibration on the site. There will be no significant dissipation of heat from the proposed/existing development. There will be no source of radiation on the site that could exert significant influence outside the site.

**Mitigation measures** are to be implemented to prevent any significant effect of the licensable activity, and the activities carried out therein, on environmental parameters. These measures are directed towards ensuring that the systems for operational activities including low protein diets and frequent organic fertiliser removal as applicable, and collecting wastes and removing them from the site for appropriate treatment in authorised waste treatment installations will be adequate for that purpose.

**Waste materials** generated on the site, under normal operating conditions, will be collected and transported off the site by appropriately authorised waste contractors to be consigned for disposal, recovery and/or recycling in appropriately authorised installations.

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 licensable activity.



- 4 (2) A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.**

The licensable activity is to be operated within the applicants existing pig farm at Jorristown Upper, Killucan, Co. Westmeath.

The farm operated by the applicant has been operated as a pig farm since the c. 1970's, and is currently licensed to operate as a 625 breeding sow unit. It consists of existing pig housing, together with all ancillary structures and facilities necessary for the operation of this enterprise.

The licence review application seeks to accommodate the housing of production pigs within the licence and permit the farm operating as a 625 (including served Gilts) sow integrated farm, in line with the original E.I.S. This will ensure that the farm can operate in line with modern production and performance criteria, environmental and welfare requirements and rear all pigs produced on the farm to target weight.

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**4(3) Description of the aspects of the environment likely to be significantly affected by the activity.**

..... Please refer to Original E.I.S. Section 3 - Impacts & Mitigation Measures .....

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

• **4(3)(1) Effect on Population and human health**

..... Please refer to Original E.I.S. Section 3.4 - Impacts on Noise .....

The nature of the licensable activity is of average scale when compared to the average sized Irish Pig farm, and is in line with that as previously approved by Westmeath Co. Co. and as outlined in the original E.I.S. It will secure the economic activity on the farm, with consequent "trickle down" positive effect in the region and the local community, particularly with regard to direct labour, maintenance, services and associated activities, thus helping to stabilise the population of the local area.

Significant effects on population / human health and/or human beings are not anticipated.

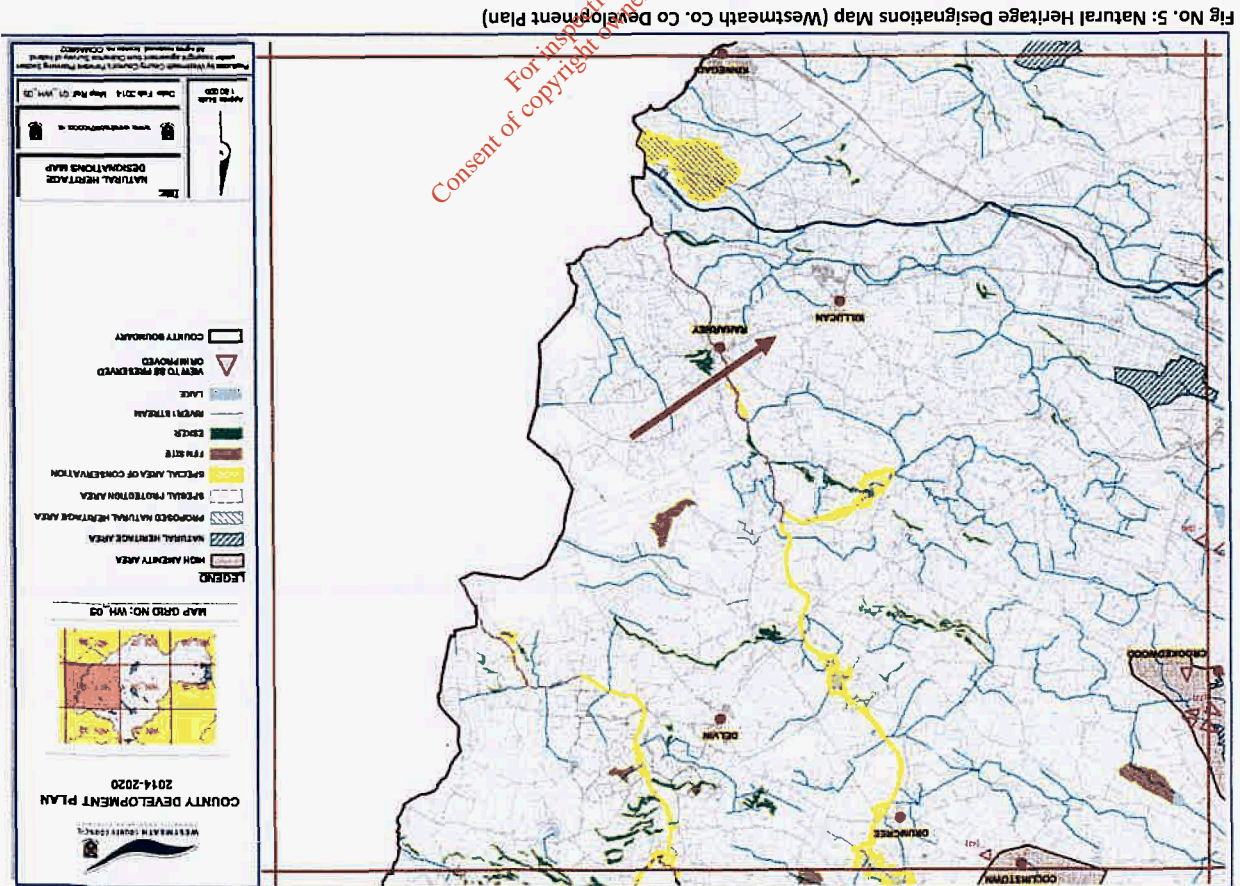
There are no third party dwellings close (i.e. within 400 metres) to the activity as to be adversely affected by, or experience significant impairment of amenity due to the activity. The activity is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience of this and other similar sites indicates that the legal limits for such emissions, 55db daytime and 45db night-time are highly unlikely to be exceeded beyond the site boundary. There are no processes 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 animals/manure are being removed from the site. In so far as is possible odour emission is to be managed so as to occur at times when the effect within the site or outside it will be minimal. Please refer to the Odour Impact Assessment carried out in relation to this farm which assesses the potential impact of the licensable activity under consideration as part of the licence review.

The existing farm and/or site of the activity is not located close to and/or likely to adversely impact on any areas of High Amenity value as detailed in the Westmeath County Development Plan 2014 - 2020. Please refer to Fig. No. 5 in this regard. Based on experience at similar sites elsewhere in the country significant effects are not anticipated. Where nuisance effects occur, people object and under statutory requirements their objections will have to be investigated and have to be corrected if found to be real and justified.

An air quality impact assessment has been undertaken for the in respect of this licence review. A copy of same is included in appendix No. 6. The maximum ground level odour concentration is predicted to be primarily confined to the immediate environs of the pig sheds. It should be noted that the predicted results in this assessment are considered worst case.

The results detail that the maximum 98th percentile of 1-hour ground level odour concentration at the worst effected residential property with no interest in the operation of the pig farm, in the vicinity of the site, at 2.29 ouE/m<sup>3</sup> is in accordance with the target limit value for of 5.6ouE/m<sup>3</sup> when taken as an average of the 5-year period or within any individual 1-year period. It should be noted that the figure of 2.09 ouE/m<sup>3</sup> which is well below the threshold of 6, is only exceeded at one out of the 10 locations, and in only one year out of 5 at this location. The average values are considerably lower as detailed below.



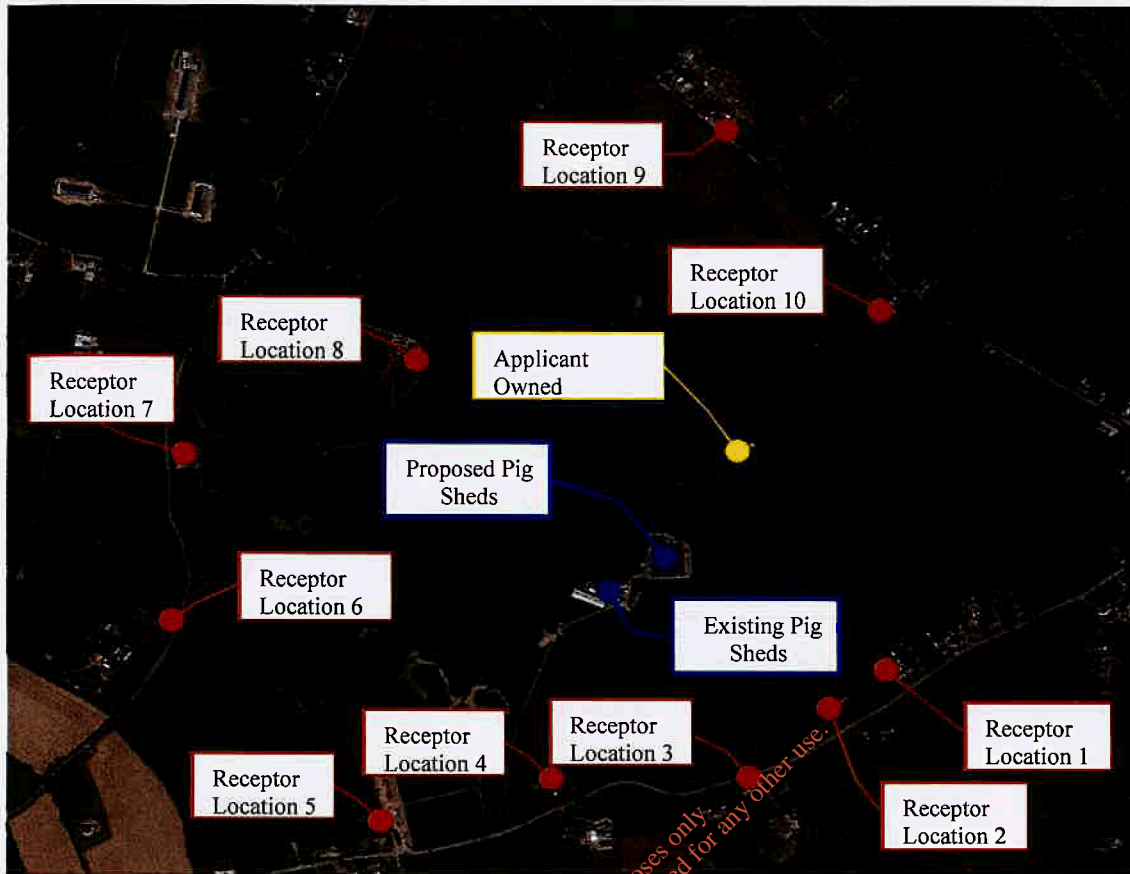


Fig No. 6: Location of Dwellings closest to pig farm site

Odour modelling was carried out for each individual year with the results at the nearest sensitive locations presented in Table 10. All results are the odour concentration in ( $ou/m^3$ ). For the site layout all third party dwellings are within the  $6ou/m^3$  when considered as individual years and as a 5-year average of the 98th percentile.

Table 3: 98<sup>th</sup> Percentile of the max 1-hr odour levels at nearest residential properties

Location	2015	2016	2017	2018	2019	Average
1	1.00	1.03	1.26	0.65	0.93	0.97
2	1.33	1.23	1.47	1.05	1.13	1.24
3	1.02	1.61	1.14	1.40	1.48	1.33
4	0.53	1.28	0.57	0.98	1.03	0.88
5	0.47	1.13	0.29	0.98	0.59	0.69
6	0.25	0.38	0.17	0.27	0.33	0.28
7	0.32	0.41	0.16	0.25	0.35	0.30
8	0.82	0.86	0.57	0.76	1.06	0.81
9	0.69	0.83	0.61	0.71	0.65	0.70
10	1.69	1.84	2.29	2.07	1.84	1.95

• **4(3)(2)Effect on Bio-diversity (flora and fauna)**

..... Please refer to Original E.I.S. Section 3.5 - Impacts on Flora and Fauna .....

The site of the licensable activity is an existing farmyard area. The flora and fauna around the site has developed in this context. There will be no prosed intensification of activities, increase in organic fertiliser production and/or increase in operational wastes produced, over and above that as previously approved by Westmeath Co. Co. as a result of the licence review.

The activity is not near to or likely to adversely impact on any areas of amenity value. Structures and new paved surfaces cover a significant fraction of the site. There are four Natura 2000 designated sites within 15km of the application site. These designated areas and their closest points to the proposed development site are summarised in Table 2 and a map showing their locations relative to the application site is shown in Figure 4. A full description of these sites can be read on the websites of the National Parks and Wildlife Service (npws.ie) and the Joint Nature Conservation Committee (jncc.defra.gov.uk).

Site Name & Code	Distance from Proposed Development	Special Conservation Interests (SCI)	Possible Impacts?
The River Boyne and River Blackwater SAC 002299	1.2km east	<ul style="list-style-type: none"> <li>• River lamprey (<i>Lampetra fluviatilis</i>)</li> <li>• Salmon (<i>Salmo salar</i>)</li> <li>• Otter (<i>Lutra lutra</i>)</li> <li>• Alkaline fens</li> <li>• Alluvial forests with alder <i>Alnus glutinosa</i> and ash <i>Fraxinus excelsior</i></li> </ul>	Yes – Potential Impacts upon this SPA and its SCI arising from atmospheric emissions will be considered further.
The River Boyne and River Blackwater SPA 004232	1.2km east	<ul style="list-style-type: none"> <li>• Common Kingfisher <i>Alcedo atthis</i></li> </ul>	Yes – Potential Impacts upon this SPA and its SCI arising from atmospheric emissions will be considered further.
Mount Hevey Bog SAC 002342	4.1km south	<ul style="list-style-type: none"> <li>• Active raised bogs</li> <li>• Degraded raised bogs still capable of natural regeneration</li> <li>• Depressions on peat substrates of the Rhynchosporion</li> </ul>	Yes – Potential Impacts upon this SAC and its SCIs arising from atmospheric emissions will be considered further.
<b>Wooddown Bog</b> SAC 002205	9.1km west	<ul style="list-style-type: none"> <li>• Degraded raised bogs still capable of natural regeneration</li> </ul>	No - The SAC is outside of the zone of influence of the proposed development. This SAC is not assessed further.

Table No. 4: Natura 2000 sites within 15km

The application site lies within the Boyne Hydrometric Area and Catchment, and the Deel Sub-Catchment and Sub-Basin. There are no surface water features within or adjacent to the application site. There is a pond close to the farm site and this is 88m north-east of farm. The River Deel is 1.2km east of the farm. The River Deel is a tributary of the River Boyne and the confluence of these two waterbodies is 11.5km south-east of the application site.

The EPA have classified the ecological status of the River Deel as being of good ecological status at points upstream of Raharney, whilst it deteriorates to moderate ecological status downstream of Raharney. Under the obligations of the Water Framework Directive, it is required that all water bodies achieve good ecological status. There will be no discharge of soiled water or effluent from the activity to surface water and so the activity will not have any significant impact on surface waters.

There is an existing rodent control programme in operation on the pig farm. The existing programme as implemented on site is in line with Bord Bia and Department of Agriculture, Food and The Marine requirements and is working satisfactorily. Detailed records regarding bait point location, frequency of baiting and products used are maintained on site. No other pests will be attracted to the site due to the proper storage and disposal of all wastes, proper storage of all feedstuffs and maintaining the houses and external areas in a clean and tidy manner.

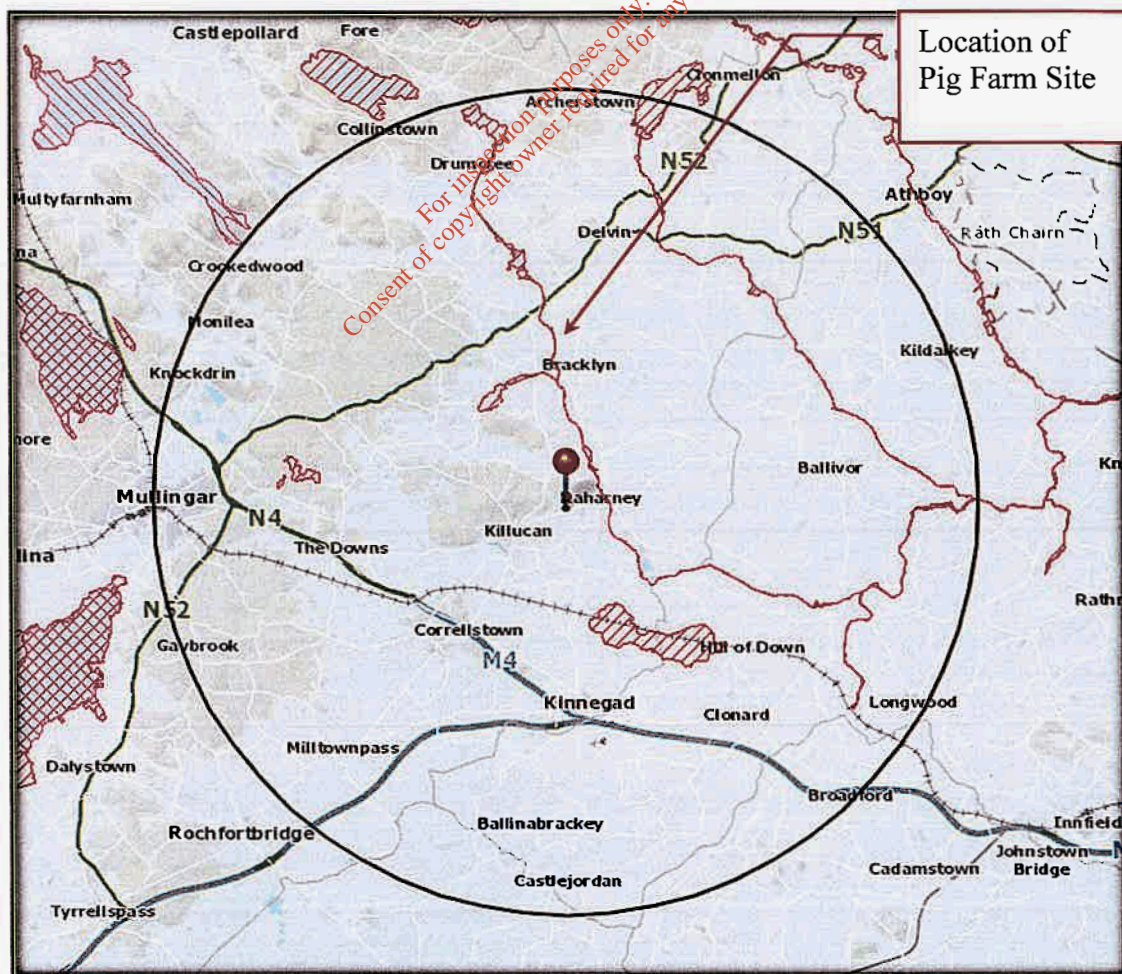


Fig No. 6: The Application Site (Outlined in Red) in relation to the Natura 2000 Sites within 15km. SACs – Red Hatching, SPAs – Pink Hatching

Weed control will be carried out around the site as required to reduce any cover for pests. It is considered that the development, managed as is proposed, which operates and will have to operate under License regulations, will have no measurable impact on either flora or fauna outside the site boundary. Given that the area of the licensable activity is a brownfield area with poor biological diversity, retaining as much as possible of the existing landscaping/hedgerow around the site boundary, should maintain biological diversity on the site.

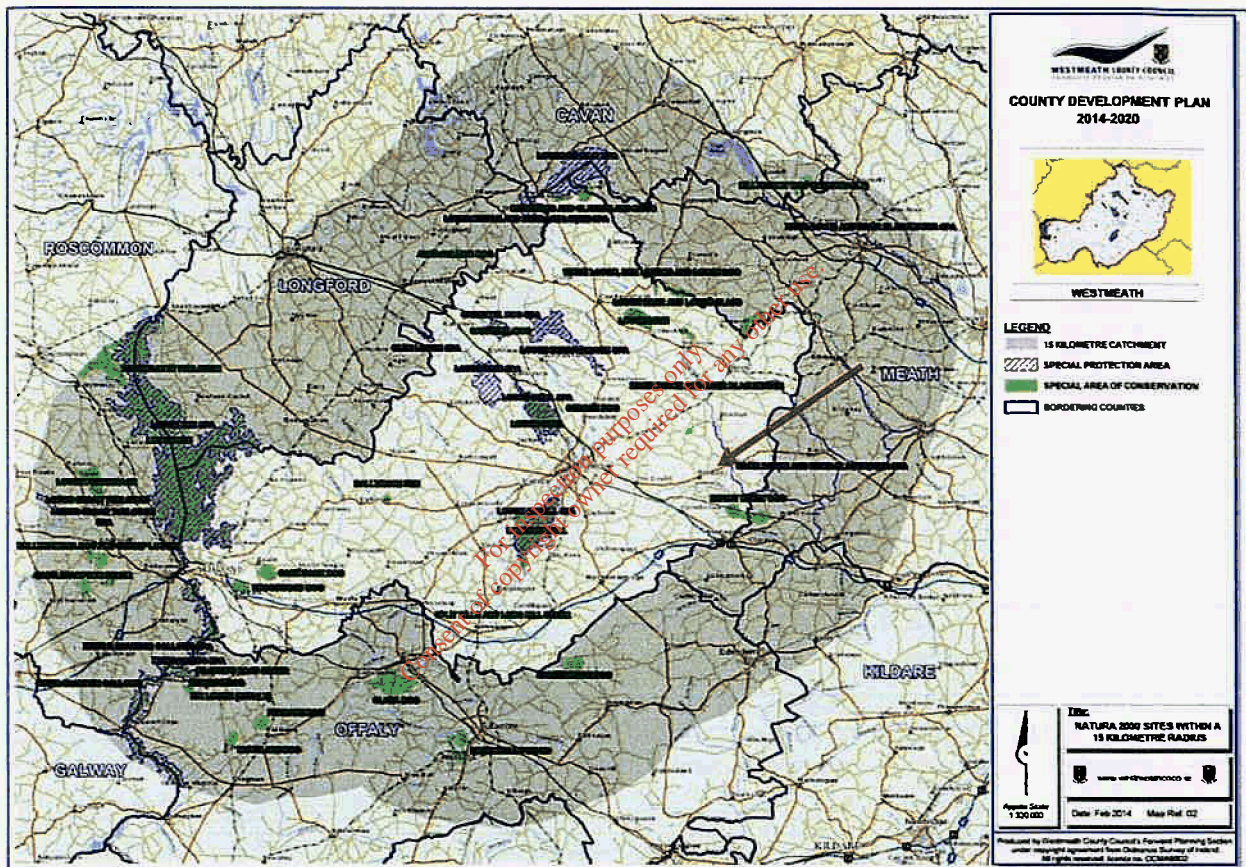


Fig No. 7: Natura 2000 sites Westmeath Co. Co. Development Plan.

**Ammonia Impact Assessment (Please refer to Appendix No. 5 for completed report)**

In order to correctly assess the potential impacts of the operation of the farm on the Natura 2000 sites, detailed atmospheric modelling of the proposed development was undertaken by Irwin Carr Consulting in November 2019. The overall purpose of this report was to quantify the ammonia and nitrogen levels at the ecologically sensitive areas in the vicinity of the proposed pig farm. The predicted impacts can then be compared to an appropriate criterion and graphically illustrated in the form of “contours of equal concentration” or isopleths which are superimposed on base maps.

Using an AERMOD Dispersion Modelling Package, the projected ammonia and nitrogen emissions from the proposed development at Joristown Upper were modelled using details such as animals per house and the ventilation currently used in the house. Other factors taken into consideration as part of the model included the fact that the animals will be fed on a low protein diet, meteorological data, building downwash and digital terrain data.

The report provided the annual average ammonia concentrations at ecologically sensitive sites, including the Natura 2000 sites considered as part of this assessment. For the purpose of modelling, the River Boyne and Blackwater was split into two areas. This was done as in most locations, this SAC does not contain habitats that are sensitive to ammonia and the site boundary is confined to the river itself and the riparian edges that serve as a buffer zone for the otter and other species that have been designated as Qualifying Interests (QI) of this site. The only QI that is sensitive to ammonia deposition in this SAC is alkaline fen, and therefore for the purpose of this modelling exercise, its location in relation to the proposed development was considered separately. The results are presented in Table 2, whilst Table 3 provides an assessment of the process contribution for ammonia on the Natura 2000 sites arising from the proposed development.

Natura 2000 Site	2015	2016	2017	2018	2019	Average
River Boyne and Blackwater SAC (at closest point, no sensitive habitats) – 1.13km	0.123	0.109	0.168	0.109	0.142	0.130
River Boyne and Blackwater SPA (kingfisher only, no sensitive habitats) – 1.16km	0.117	0.104	0.160	0.104	0.135	0.124
Mount Hevey Bog SAC – sensitive peatland habitats – 4.19km	0.011	0.013	0.009	0.010	0.012	0.011
River Boyne and Blackwater SAC (closest possible sensitive habitat, i.e., alkaline fen) – 4.34km	0.010	0.010	0.007	0.009	0.010	0.009

Table 5 – Ammonia Concentrations ( $\mu\text{g}/\text{m}^3$ ) at Natura 2000 Sites (Taken from Table 16 Of Ammonia Impact Assessment Report)



Natura 2000 Site	Critical Load Guideline	Background	Highest PC	PEC	PC / Guideline Level (%)	PEC / Guideline Level (%)
River Boyne and Blackwater SAC	3	2.23	0.168	2.398	5.6*	80
River Boyne and Blackwater SPA	3	2.23	0.160	2.390	5.3*	80
Mount Hevey Bog SAC	1	2.17	0.013	2.183	1.3	218
River Boyne and Blackwater SAC – alkaline fen	1	2.23	0.010	2.240	1	224

Table 6 – Ammonia Concentrations ( $\mu\text{g}/\text{m}^3$ ) at Natura 2000 Sites – Predicted Impacts from the Proposed Development (Taken from Table 17 Of Ammonia Impact Assessment Report)

\*At Locations 1 & 2, which are the closest areas of the River Boyne & Blackwater to the site, the predicted impacts are 5.6% and 5.3% respectively. However, it should be noted that these areas are likely to only host the QI species of the SAC / SPA, none of which will be significantly affected by ammonia from the site. The closest part of the designated site that is considered sensitive to ammonia is Location 4-the alkaline fen habitat. At this location the deposition of ammonia is <4% and therefore considered to be insignificant.

The ammonia concentrations at the sites are dominated by the background concentrations, which are approximately 73– 224% of the air quality guideline for ammonia. It can be seen from the Table above that the guideline level (critical level) of ammonia is not exceeded at 3 of the 4 sites (Locations 1, 2 and 4). At the one site where the Critical Level of ammonia is exceeded (Location 3), the PC of the proposed site is 1.3% of the Guideline level, and as a result considered insignificant for the purposes of this

The AERMOD modelling report also provided an estimate of nitrogen arising from the proposed pig farm. Again, for the purpose of modelling the effects of the farm accurately on the SAC, the River Boyne and Blackwater SAC was divided into two areas. A summary is provided in Table 4.

Natura 2000 Site	Guideline	Background	Highest PC	PEC	PC / Guideline Level (%)	PEC / Guideline Level (%)
River Boyne and Blackwater SAC	15	15.97	0.87*	16.84	5.8	112
River Boyne and Blackwater SPA	15	15.97	0.83*	16.80	5.5	112
Mount Hevey Bog SAC	5	15.81	0.07	15.88	1.4	318
River Boyne and Blackwater SAC – alkaline fen	15	16.35	0.05	16.40	0.4	109

Table 7 – Nitrogen Concentrations (kg/N/ha/yr) at Natura 2000 Sites – Predicted Impacts from the Proposed Development (Taken from Table 20 Of Ammonia Impact Assessment Report)

\*At Locations 1 & 2, which are the closest areas of the River Boyne & Blackwater to the site, the predicted impacts are 0.87 and 0.83kg N/ha/yr respectively. However, it should be noted that these areas are likely to only host the Qualifying Interest species, none of which will be significantly affected by nitrogen from the site. The closest part of the designated site that is considered sensitive to nitrogen is Location 4 – alkaline fen habitat. At this location the deposition of nitrogen is <0.3kg N/ha/yr and therefore considered to be insignificant.

It can be seen from Table 4 that the nitrogen concentrations at the sites are dominated by the background concentrations. The PC at Locations 4 - 5 is less than 0.1kg N/ha/yr, and as a result would be considered de minimus for the purposes of the Nitrogen assessment.

The critical load for the River Boyne and Blackwater SAC / SPA has been cited as 15kg/N/ha/yr and this is based on the fact that alkaline fen is a Qualifying Interest of this site. This habitat is relatively sensitive to nitrogen deposition. Taking this CL, it can be seen that the contribution of nitrogen from the proposed development at the River Boyne and Blackwater SAC and SPA is 6.1% and 5.8% respectively. For the purpose of AA, this can be considered significant.

However, this contribution is assuming that alkaline fens occur in the SAC / SPA at the closest point to the proposed development site, which is 1.2km east. There are no alkaline fen habitats 1.2km east of the application site and the closest possible location of this habitat within the SAC is 4.1km north-west of the site. The deposition of ammonia and nitrogen here is likely to be insignificant.

The SAC / SPA where it is closest to the development site, and therefore where it is likely to be most impacted by atmospheric emissions is likely to only host the QI species of the SAC / SPA. Neither of these interests will be significantly affected by the deposition of ammonia or nitrogen from the site.

### ➤ CUMULATIVE IMPACTS

There are other agricultural activities ongoing close to the current application site, therefore cumulative impacts arising from the operation of these farms together were considered. All farms, regardless of whether licensed by the EPA or not, are required to operate within the legalisation defined in S.I. 605 of 2017 regarding manure storage, minimisation of soiled water and general good agricultural practice, etc. Therefore, cumulative impacts arising from the combined operation of these activities with the proposed operation of the pig farm at Joristown Upper will be negligible.

The Ammonia Impact Assessment report has also considered potential cumulative impacts. It is the purpose of a cumulative assessment to determine whether there is a significant impact at a designated site. The EPA have defined in their Guidance what is considered 'significant':  
*"Significance', in an Irish context, for any pollutant may be defined as an impact leading to a 5% increase in the applicable ambient air quality standard (AQS)".*

In their recent consultation response, the EPA confirmed that for the assessment of impacts of intensive agriculture installations on Natura sites is typically 4% of the critical load limit for ammonia and 5% of the critical load limit for nitrogen.

The following points detail whether or not a cumulative assessment is necessary as part of this assessment. These points are based on a flowchart as presented in Figure 2 of the Ammonia Impact Assessment (based on the EPA, Office of Environmental Enforcement. Air Dispersion Modelling from Industrial Installations Guidance Note AG4).

It is noted that Option 3 of the flowchart states "Is the impact from the proposed installation above the 'significance' level (5% of AQS) for the same pollutant?" It can be seen from Table 17 of the Ammonia Impact Report above that even when considering a worst case scenario, the maximum process contribution at the closest designated site (Location 1 and 2 within the River Boyne and Blackwater SAC/SPA) is 5.6% and 5.3% respectively. As a result, a cumulative assessment may be required for these locations.

In order to carry out a cumulative assessment it was necessary to identify any nearby installations that also have the potential to contribute a significant ammonia impact. There were three such sites in the vicinity of the proposed installation:

1. P0713-03: Granted in 2012 but understood to have been operating prior to 2009
2. P0874: Granted in 2010 but understood to have been operating prior to 2009
3. P0984-01: Granted in 2016 but understood to have been operating prior to 2009. An appropriate assessment was also submitted in support of the application which concluded that an adverse effect from the pig rearing facility was highly unlikely at the designated sites in the vicinity.

Given that all sites were operational prior to 2009, their impact will be included in the background level of ammonia, and the approval of the associated licences will not impact on the existing ammonia levels in the vicinity. As the nearby installations do not have the potential to contribute a significant impact at the River Boyne & Blackwater, no further assessment is required, in line with Step 4 of the EPA flowchart.

● **4(3)(3)Effect on Land and Soil**

..... Please refer to Original E.I.S. Section 3.2 - Impacts on Soils and Geology .....

The site of the licensable activity is already an existing farmyard. There is no significant potential for any effect on soil, outside of the development area.

If anything there is the potential for some positive benefits on soil on potential customer farmer lands as a result of the security of production of organic fertiliser by the activity. Such organic fertiliser provides a valuable addition to the soil adding nutrients not generally found in chemical fertiliser. Organic matter in soils is generally in decline, particularly on tillage farms and the use of an organic fertiliser is preferable to chemical fertiliser in maintaining adequate organic matter levels in soils. All organic fertiliser is destined for customer farmers for use as organic fertiliser in accordance with S.I. 605 of 2017, as amended in response to demand.

See Appendix No. 12 for general soil classification for this area. The subsoils in this area are described as Drumlin soils with the site located in Soil association 31 (Minimal Grey Brown Podzolics (80%), Gleys (10%) Brown Earths (5%) and Basin Peat (5%)). Parent material is mostly Mostly Limestone glacial till.

While the G.S.I. classifies the site of the activity as follows,

Parent Material	GLs
Parent Material Name	Glaciofluvial sands and gravels
Parent Material Description	Limestone sands and gravels (Carboniferous)
Soil Group	Renzinas, Lithosols
IFS Soil Code	BminSW
IFS Soil Description	Derived from mainly calcareous parent materials
County	WESTMEATH
Category	Shallow well drained mineral (Mainly basic)
Legend	BminSW - Shallow well drained mineral (Mainly basic)

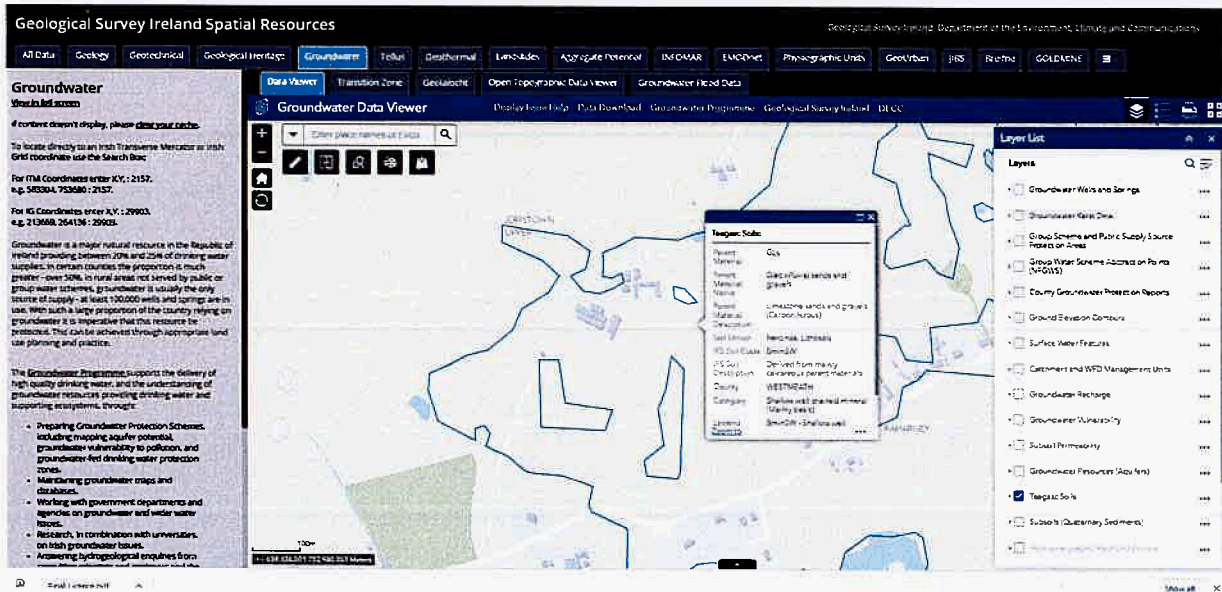


Fig No. 8: Soil Type. Source www.gsi.ie

- **4(3)(4)Effect on Geological & Geomorphological heritage of the area.**

..... Please refer to Original E.I.S. Section 3.1 - Impacts on Water .....

There is no significant potential for any effect outside of the operational area. Given this location on an existing farm and within existing structures the the activity will not have any adverse impact on the geology of the area. In addition as the activity will be fully contained within the existing site the activity will not have any adverse impact on the landscape and/ or the geomorphological heritage of the area.

- **4(3)(5)Effect on Water**

..... Please refer to Original E.I.S. Section 3.2 - Impacts on Soils and Geology .....

Adverse effect on *ground water* from the activity should be nil, as there will be no process discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. The activity is to be carried out with mass concrete manure storage tanks completed to D.A.F.M. specifications, with proper storm and soiled water separation and collection facilities. The only soiled water from the activity will arise due to washing down of the pig houses, and solid passageways, which will be diverted to the manure storage tanks. As previously detailed there will be no intensification of activities on the farm, over and above that as previously approved by Westmeath Co. Co., and/or increase in manure volumes, thus there will be no increased risk to groundwater in the area of the farm.

The volume of water needed for the farm once the activity has been completed will be relatively unchanged. The existing water supply on the farm is from an 2 No. on-farm wells (one within, and one external to the licensable site boundary, (with a backup from the local supply scheme), which will also serve the activity.

According to the Geological Survey of Ireland the aquifer classification appropriate to the site and the surrounding area is a

Aquifer Category	LI
Category Description	Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones
Area (sq km)	17,808

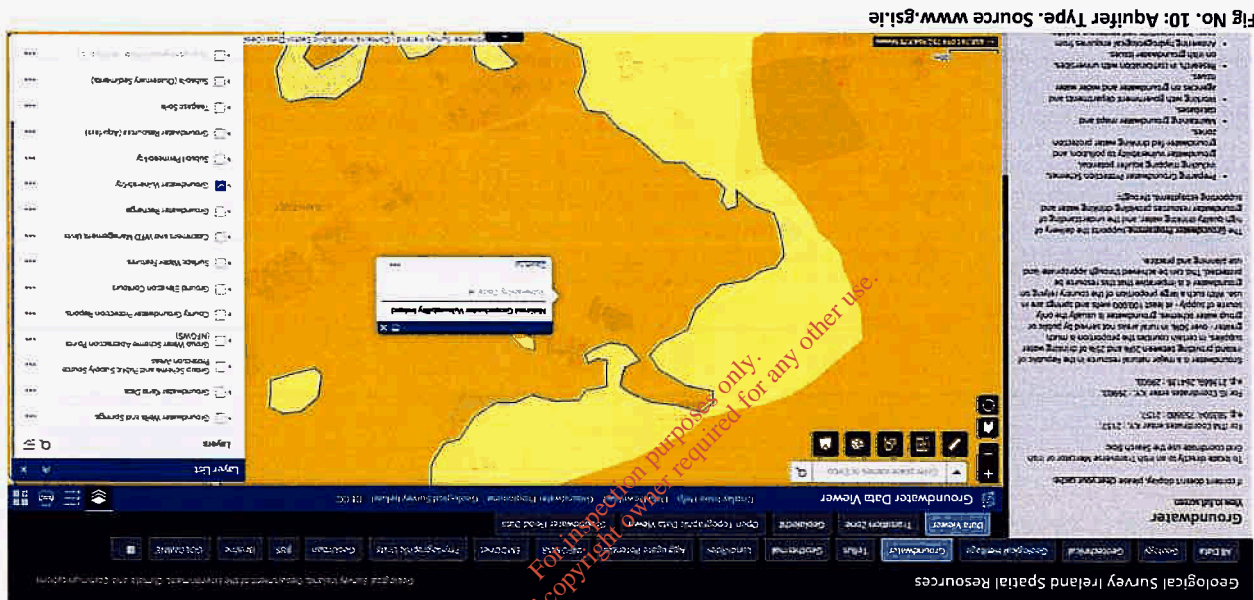
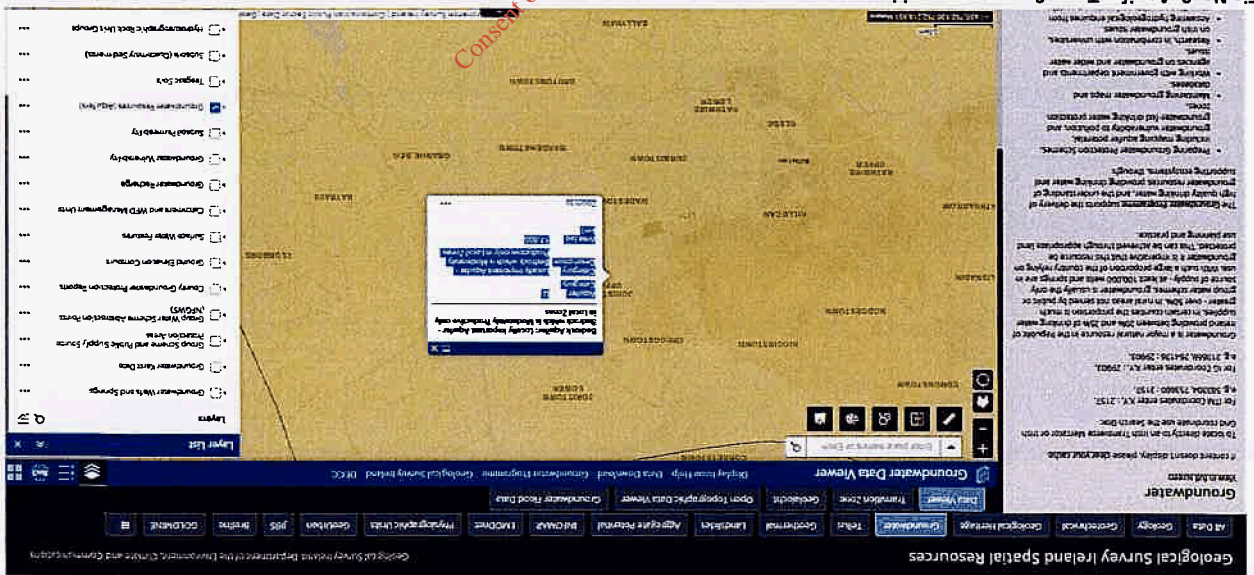
with a vulnerability rating of High (H) vulnerability.

As previously detailed there will be no intensification of activities on the farm and/or increase in manure volumes over and above that as previously approved by Westmeath Co. Co. , thus there will be no increased risk to groundwater in the area of the farm. The quality of the infrastructure, and manure storage capacity on the farm should help to protect water features in the area.

Yield is one of the main concerns in aquifer development projects, yields from existing wells are conceptually linked with the main aquifer categories:

- Regionally important (R) aquifers should have (or be capable of having) a large number of 'excellent' yields: in excess of approximately 400 m<sup>3</sup>/d.
- Locally important (L) aquifers are capable of 'good' well yields 100-400 m<sup>3</sup>/d).
- Poor (P) aquifers would generally have 'moderate' or 'low' well yields - less than 100 m<sup>3</sup>/d.

The development as detailed with a water requirement of 10,000m<sup>3</sup> per annum = 27m<sup>3</sup> / day will be easily supplied from the local aquifer with yield from each well expected to be a minimum of 4 times this. As a result this water extraction will have no adverse impact on extraction outside of the site/applicants landholding.



Adverse effect on surface water from the activity should be nil, as there will be no process discharge to surface water and minimal risk of accidental leakage or spillage of liquid on the site. The only discharge from the site to surface waters will be the discharge of rainwater, to the local surface water feature, a tributary of the Deel River. Discharges to ground will consist of 2 No. surface water soak pits and the percolation area as detailed on the site plan drawings contained in Appendix No. 10 in order to avoid any reductions in water quality in the area surrounding the activity and in order to protect any designated sites, designated species and sensitive surface/ground waters, in the general area of the development and/or further afield, a number of mitigation measures have been implemented, and/or planned for, that will help to protect the local biodiversity of the surrounding area and to ensure the protection of local wildlife.

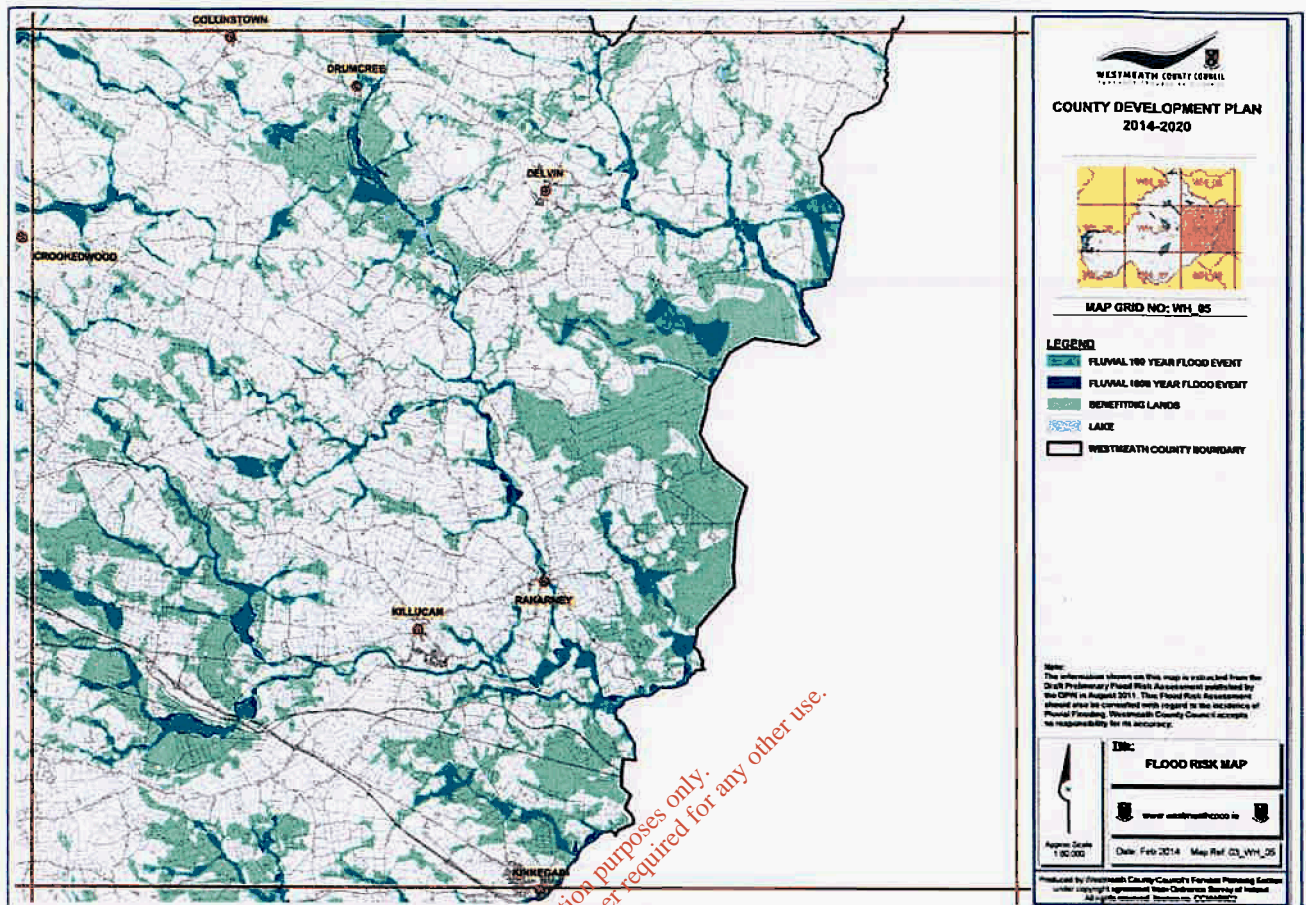


Fig No. 11: Flood Risk Map. Source Westmeath Co. CO. Development Plan

### During Operation

- All activities on site to be carried out in accordance with the Department of Agriculture, Food and Marine, Bord Bia, EPA and Westmeath Co. Co. requirements and specifications and/or industry standards
- All organic fertiliser generated on site to be allocated to customer farmers and utilised in accordance with the requirements of S.I. 605 of 2017, as amended.
- All potentially polluting products (fuels, detergents etc.) stored in appropriately bunded areas.
- Stormwater discharge points checked and inspected on a weekly basis for any sign of contamination, in line with current licence requirements.
- Appropriate measures to be put in place to deal with any accidents etc. that have the potential to cause adverse environmental impact.

- **4(3)(6)Effect on Air**

..... Please refer to Original E.I.S. Section 3.3 - Impacts on Air Quality .....

The potential effects of the activity on air relate to the odour emissions that may be associated with pig and pig manure on site. Odorous emissions from the licensable activity as a whole are not likely to cause nuisance or impair amenity beyond the site boundary, with the possible exception of times when animals and/or manure is being removed from the site.

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

- Proper storage of all wastes on site, and regular removal of same. Regular inspections to remove any fatalities from the houses, and stored in proper sealed and covered storage bins.
- Regular washing of pig houses, to minimise odour and maintain high health status.
- Regular cleaning of outside areas.
- Minimal agitation of manure. Transport of manure off site to take place in properly designed and sealed tankers.
- Proper stocking rate within the houses.
- Proper management of temperature and humidity controls.

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

As detailed previously the activity is located a significant distance away from any Natura 2000 sites. There will be no increase in the scale of activities on the farm, over and above that as referred to in the E.I.S. and emissions (incl. gaseous emissions) from the licensable activity are unlikely to adversely impact on same and/or on any other sensitive areas.

Appropriate mitigation measures have been detailed (incl. low protein diets and frequent removal of organic fertiliser) to minimise any potential effects and these are discussed in more detail in the site specific Ammonia and Odour impact assessments as detailed in Appendix No. 5 and 6.



#### ● 4(3)(7) Effect on Climate / Climate Change

Climate information is useful for predicting the likely impacts that the farm operation and the application of manure in the area will have upon the residents. Wind direction at the site is critical to odour movements and rainfall is critical factor in the application of manure. The prevailing wind in the Mullingar area is from the south-west. Rainfall in the local area is c. 900mm -1000mm.

Large livestock populations and nitrogen inputs to soil generate approximately one-third of all greenhouse gases in Ireland. The amount of *methane* emitted by livestock is a lot higher for ruminants such as cattle and sheep versus non-ruminants such as poultry/pigs. This is as a result of the different digestive systems.  $N_2O$  emissions can be divided into three areas,

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

Organic fertiliser from this farm will be used by customer farmers. The fact that the customer farmers utilising organic fertiliser from this farm will allocate it in accordance with the provisions of S.I. 605 of 2017, as amended, particularly with regard to amounts applied, weather and ground conditions at the time of spreading, and even application, etc., should ensure that emissions generated are kept to an absolute minimum.

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

All practicable steps, such as landscaping, management routines etc., will be planned for and will be taken so as to minimise odour from the site. Its rural setting and location distant from local residences will ensure no effect on human health / population.

Appropriate mitigation measures have been detailed (incl. low protein diets and frequent removal of organic fertiliser) to minimise any potential effects and ensure compliance with BAT requirements and these are discussed in more detail in the site specific Ammonia and Odour impact assessments as detailed in Appendix No. 5 and 6.

This development will have no significant adverse effect on Climate / Climate Change.

● **4(3)(8)Effect on Visual Aspects and Landscape**

..... Please refer to Original E.I.S. Section 3.8 - Impacts on Visual Impact .....

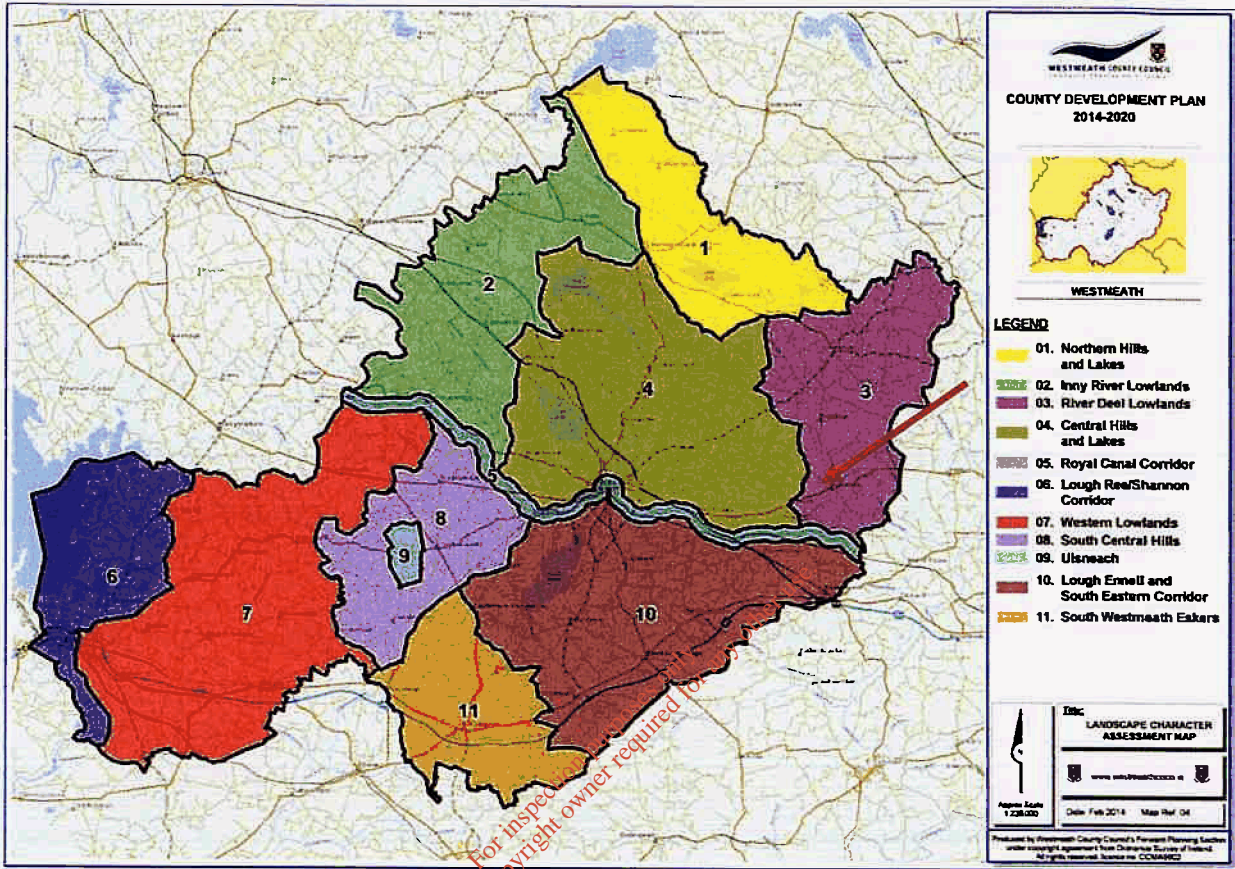


Fig No. 12: Landscape Classification. Source Westmeath Co. CO. Development Plan

The site is located in an areas referred to as the River Deel Lowlands.

- **4(3)(9)Effect on Archaeological & Cultural Heritage**

..... Please refer to Original E.I.S. Section 3.6 - Impact on Cultural Heritage .....

There are no known archaeological sites within the site boundary and no reason to suspect the presence of such sites within the site of the activity. No indication of archaeological sites/features was observed as part of previous developments on this site. In addition, there is no visual evidence of any archaeological feature on the lands adjoining the site. There are no recorded sites within c. 0.25 km of the activity site as per the Archaeological Survey database. The closest recorded protected structure is a Ballaun Stone / ring fort located c. 0.28 km southeast of the activity site.

As any such sites are located a considerable distance from the activity the operation of the licensable activity will not impact on these recorded sites in any way. No additional infrastructural works are required at this time.

**Record Number:**

WM020-102----

**Classification:**

Ringfort - rath

**Scheduled for Protection:**

1

**Description:**

Situated on a steep natural rise, in gently undulating pasture, having good views in all directions. Depicted on the revised 1913 ed. OS 25-inch map as a large, roughly circular-shaped earthwork (approx. diam. 54m). Monument described in 1970 as a large, roughly circular-shaped area enclosed by a bank and external fosse. The bank is best preserved from NNE-NE-E and elsewhere it is almost reduced to a scarp with several modern gaps. The slight fosse is visible from NW-NNE and from S-W. The interior rises gently towards centre where there is a bullaun stone (WM020-102001-). Levelled monument is not visible today on Digital Globe aerial photography. Compiled by Alison McQueen, Vera Rahilly and Caimin O'Brien. Date of upload: 08 July 2019

**Record Number:**

WM020-102001-

**Classification:**

Bullaun stone

**Scheduled for Protection:**

1

**Description:**

Situated on a steep natural rise, in gently undulating pasture, having good views in all directions. Bullaun stone described in 1970 as being within the centre of a levelled ringfort (WM020-102----). Described in a later field report (undated) as the enclosure having been levelled and the bullaun stone pushed up against the field fence c. 18m to SE. It is a large conglomerate boulder with a circular-shaped, deep conical depression (diam. 0.35m; D 0.3). Compiled by Alison McQueen, Vera Rahilly and Caimin O'Brien. Date of upload: 08 July 2019

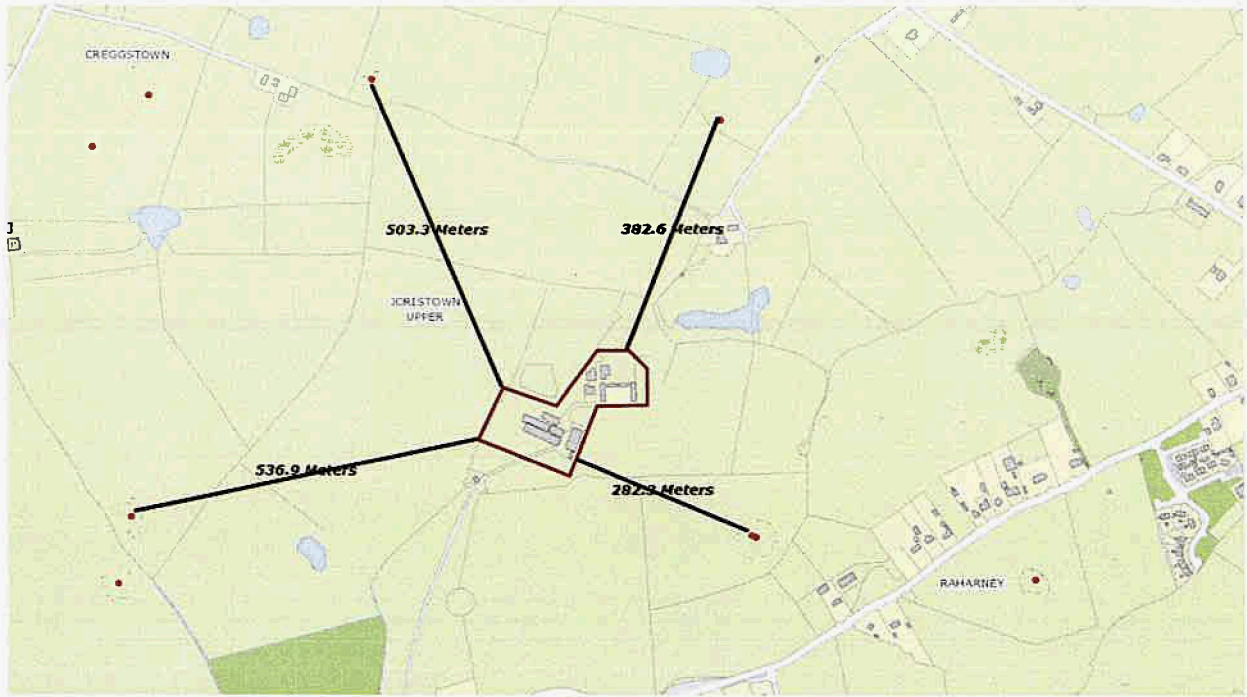


Fig No. 13: Archaeological Features Source [www.myplan.ie](http://www.myplan.ie)

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- **4(3)(10)Effect on Material Assets**

..... Please refer to Original E.I.S. Section 3.7 - Impacts on Material Assets .....

Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin and the value may arise for either economic or cultural reasons. The assessment objectives vary considerably according to the type of assets, those for economic assets being concerned primarily with ensuring equitable and sustainable use of resources. Assessments of cultural assets are more typically concerned with securing the integrity and continuity of both the asset and its necessary context.

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

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

The activity is on an existing pig farming site, in a predominantly agricultural area. The licensable activity is confined to existing agricultural structures. The activity will not interact with any lands outside the confines of the site, except for the production of a valuable organic fertiliser which may be utilized by farmers as a replacement for chemical fertiliser.

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

Pig farming is already established on the farm, is surrounded by agricultural lands and is located well away from any built up areas and/or development clusters. There are no third party residential dwelling within 400 m of the activity site. The development will not impact on adjoining property values if for no other reason than there is an already established pig farm on the site. Furthermore the site specific odour impact assessment has detailed that, there will be no adverse impact on any 3<sup>rd</sup> party dwellings.

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

The activity will be contained within the existing developed site (notwithstanding that organic fertiliser will be transferred to off-site manure storage facilities) and there will be no adverse impact outside of the existing site area.

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

#### 4 (4) Description of likely significant effects of the activity arising from:-

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

The operational activity is of average scale in terms of the average sized Irish pig farm. It will secure the economic activity on the farm, with consequent "trickle down" positive effect in the region and the local community, particularly with regard to direct labour, maintenance, services and associated activities, thus helping to stabilise the population of the local area.

The long term impact on traffic on the local road as a result of the activity will not have a significant adverse impact. Any short term increase in traffic and/or other potential impacts associated with the construction of the activity would be short term in nature and would cease upon completion of the activity.

Traffic to and from the site will be minimised by optimising load sizes, and as the site is serviced by good road infrastructure, traffic to and from the farm will not cause an adverse impact in the local area.

Traffic flows will use existing routes and site entrance(s). The site is well serviced by the existing road infrastructure and therefore any short term increase in traffic will not have an adverse impact on the local area.

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

There are no significant negative effects expected as a result of the activity in relation to the use of natural resources. The operation of the activity does not / will not require any significant increase in the use of natural resources,.

While there are no processes involved that have a high requirement for fuel energy some ancillary heating will be required. Supplementary heating with water heated/electric heated heat pads and/or bar heaters will be provided in the farrowing and first stage weaner house and the demand for heat will depend on local weather conditions. Energy requirements will be minimised by high insulation standards and a modern efficient heating system.

The activity will have a definite requirement for a supply of water readily available from the existing water supply serving the existing site. The main resource to be consumed would be pig feed, which is classifiable as a natural resource that is a renewable resource. There will be no significant alteration to the amount of feed/water used on the farm, and same will be minimised by maximising pig performance.

(iii) **The emission of pollutants (noise, vibration, light, heat, radiation etc.)**

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

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

With regard to the above and due to the nature of the activity, there will be no increase in the amount of wastes/potential pollutants produced or used on the farm, and/or no significant increase in noise, vibration, light, heat and/or radiation, that would lead to a significant adverse environmental impact. The organic fertiliser/pig manure produced is / is to be utilised as an organic fertiliser, and will be taken from the site by experienced personnel, with no increase in amounts previously approved by Westmeath Co. Co.

(iv) **The creation of nuisance**

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

Furthermore the site specific odour impact assessment has detailed that, there will be no adverse impact on any 3<sup>rd</sup> party dwellings.

(v) **The elimination and/or disposal/recovery of waste/by-products**

There will be no increase in the volumes of waste/by-product materials to be generated as a result of this activity and the farm will not cause a significant adverse environmental impact, as all waste streams are to be minimised by implementing good practice measures on-site and any wastes that cannot be eliminated will be disposed/recovered in line with existing requirements including to approved disposal/recovery sites, and/or approved carriers. The opportunity to eliminate any of the waste products does not exist.

The volume of organic fertiliser/manure (by-product) produced will be minimised by maximising pig performance, and minimising feed wastage and extraneous water.

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

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

**(vi) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)**

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

**(vii) Class A Disease**

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

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

- 1) Preventing the spread of the disease/virus, and,
- 2) Minimising damage to the environment.

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



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

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

$N_2O$  emissions can be divided into three areas,

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

The fact that the farmers in the proposed customer farmer list are allocating organic fertiliser in accordance with the provisions of S.I. 605 of 2017, as amended, particularly with regard to amounts applied, weather and ground conditions at the time of spreading, and even application, etc., should ensure that emissions generated are kept to an absolute minimum. As there is no intensification of activities, above that previously approved by Westmeath Co. Co. on the farm there will be no increase in organic fertiliser production.

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

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

**4(5) 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 activity.

The applicant has been involved in pig farming for along 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 pig farming is a traditional and widespread farming activity in Co. Westmeath and that this activity will comply with the Nitrates directive, the applicant is fully confident that the activity will have no significant adverse effect on the local environment.

#### 4(6) Cumulative And Transboundary Effects

This Pig farm is located in County Westmeath, a county with a limited intensive agriculture sector. It is anticipated that the activity at this site will not lead to a Transboundary effect due to the distance of the activity from any international boundary and the fact that in the main all wastes/by-products will be utilised/disposed of/recovered within the country, and primarily due to the fact that **there is to be no intensification of activities on the farm, over and above that as previously authorised by Westmeath Co. Co.**

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

#### 4 (7) Inter-relationships

..... Please refer to Original E.I.S. Section 3.9 - The interaction of Impacts .....

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

Part II (Second Schedule) of the Regulations requires that the interactions between human health / population, Bio-diversity (Flora and Fauna), Land / Soil, water, air and climatic factors, landscape, material assets and cultural heritage (incl. architectural and archaeological) be assessed. The aspects of the environment likely to be significantly affected by the licensable activity has been considered in detail in the relevant Chapters of the E.I.A.R. In order to demonstrate the areas in which significant interactions occur a matrix has been prepared, see figure 4.1 below.

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

Figure 4.1 Matrix Indicating Inter-relationships between EIA Factors

	Land / Soil	Water	Air & Climate / Climate Change	Landscape & Visual	Noise	Traffic	Bio-diversity (Flora and Fauna)	Human health / population	Cultural Heritage	Material Assets
Land / Soil		N	N/a	N	N/a	N/a	N	Pos	N/a	N/a
Water	N/a		N/a	N/a	N/a	N/a	N	N/a	N/a	N/a
Air & Climate / Climate Change	N/a	N/a		N/a	N/a	N/a	N	N	N/a	N/a
Landscape & Visual	N/a	N/a	N/a		N/a	N/a	N/a	N/a	N/a	N/a
Noise	N/a	N/a	N/a	N/a		N/a	N/a	N/a	N/a	N/a
Traffic	N/a	N/a	N	N/a	N		N/a	N	N/a	N/a
Bio-diversity (Flora & Fauna)	N/a	N/a	N/a	N	N/a	N/a		N/a	N/a	N/a
Human health / population	Pos	Pos	Pos	Pos	N/a	N	Pos		Pos	Pos
Cultural Heritage	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a		N/a
Material Assets	N/a	N/a	N/a	N/a	N/a	N/a	N/a	Pos	N/a	

Neutral	N
Positive	Pos
Negative	Neg
Not Applicable	N/a

#### 4 (7) (i) Discussion – Positive Impacts

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

- Impacts of Land / Soil on Human health / population** – the carrying on of the licensable activity will provide for a continuation in the supply of pig manure which is a valuable fertiliser used by customer farmers to offset the cost of purchasing chemical fertiliser. The supply of organic manure will result in a financial gain to the recipient farmers and therefore a net positive impact of the activity.
- Impacts of Human health / population on other factors** - The increase in wealth as a result of the operation of the farm would mean that there will be funds available to facilitate improvements through human endeavor in the following factors Land / Soil, water, air & Climate / Climate Change, landscape & visual, Bio-diversity (Flora and Fauna) and cultural heritage. Improvements in Land / Soil can be achieved through the addition of organic fertilizer, improvements in water through improved management and separation of storm and soiled waters, improvements in air through better manure management processes, improvement in Bio-diversity (Flora and Fauna) through the provision of additional site landscaping and maintenance and improvement in cultural heritage by the availability of time and money for the enjoyment of heritage. The impact on human health / population will ultimately result in improvements to material assets.

#### 4 (7) (ii) Discussion – Neutral Impacts

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

- **Impacts of Land / Soil on Water, Landscape & Visual and Bio-diversity (Flora and Fauna)** – The organic fertilizer will have a positive overall impact on Land / Soil adding additional nutrients. However there is potential for leaching of these nutrients to water. This threat has been mitigated as all organic manure is allocated to customer farmers for use in accordance with S.I. 605 of 2017, as amended and excessive application of this organic fertilizer will not occur. There will be no increase in the volume of organic fertiliser to be produced on the farm, over and above that previously detailed in the E.I.S..

The positive impact on Land / Soils in the customer farmland areas will potentially see a change in landscape through the improvement in field pastures, this may be viewed as a slightly positive impact overall and any changes will be minimal through compliance with S.I. 605 of 2017, as amended, as this organic fertiliser will be used to replace chemical fertiliser. The changes in Land / Soil may result in a reduction in diversity of Bio-diversity (Flora and Fauna) in receiving lands. However all lands proposed for receipt of organic fertilizer will comprise productive agricultural lands for the production of crops or improved grassland and organic manure will not be applied to areas of scrub or other habitats.

- **Impacts of Water on Bio-diversity (Flora and Fauna)** – The organic manure generated together with any soiled water on site has the potential to negatively impact on water. A reduction in water quality in the area would have an effect on both local Bio-diversity (Flora and Fauna) and Bio-diversity (Flora and Fauna) in the wider river catchment area. This potential threat has been mitigated through the proposal to allocate all organic fertilizer for use in accordance with S.I. 605 of 2017, as amended. This is further mitigated through the provision of an appropriate on site storm water drainage system. These mitigating measures are sufficient to ensure that there is no negative impact on Bio-diversity (Flora and Fauna) as a result of its relationship with water.
- **Impacts of Air & Climate / Climate Change on Bio-diversity (Flora and Fauna) and Human health / population** – There is a potential threat to Bio-diversity (Flora and Fauna) and Human health / population as a result of any impact on air due to the existing farm. The generation of mal-odour on site may have a slight negative impact on Bio-diversity (Flora and Fauna) and in particular on human health / population, however this is mitigated by the fact that the activity location is in excess of 400 m from any existing third party dwelling. Adequate mitigating measures have been described in this E.I.A.R. to ensure that this threat does not materialise and thereby ensuring the potential impact is neutral.

Furthermore the site specific odour and ammonia impact assessments have detailed that, there will be no adverse impact on any sensitive receptors.

#### 4 (7) (iii) Potential Impacts and Mitigation Measures

This section presents the significance of potential impacts following the implementation of mitigation measures. The E.P.A. classifies impacts as follows:

Impact	Description
Negative	A change which reduces the quality of the environment.
Positive	A change which improves the quality of the environment.
Neutral	A change which does not affect the quality of the environment.
Temporary	Impact lasting for 1 year or less.
Short-term	Impact lasting for 1 – 7 years.
Medium-term	Impact lasting for 7 – 20 years.
Long-term	Impact lasting for 10 – 50 years.
Permanent	Impact lasting for >50 years.
Slight	An impact which causes changes in the character of the environment which are not significant or profound.
Significant	An impact which by its magnitude, duration or intensity alters an important aspect of the environment.

Interactions between the above environmental factors show the potential effect of the pig farm on the community and its environs. Human health / population are the main impact receptor, Bio-diversity (Flora and Fauna) being the other. The pig farm and its production processes will minimally impact upon the landscape, archaeology, terrestrial, water quality and Climate / Climate Change described under the heading natural environment.

Traffic, air quality, noise, tourism and material assets are the factors that affect the community directly. This pig farm with its associated fertiliser substitution programme will have no significant impact on the rural community.

As previously detailed there will be no intensification of activities on the farm and/or increase in manure volumes, over and above that as detailed in the original E.I.S., thus there will be no increased risk of potential impacts in the area of the farm.

	Category	Potential Environmental Issues/Effects	Potential Impact ~ Site	Potential Impact ~ Customer Lands	Duration	Mitigation	Residual Impact
Natural Environment	Terrestrial						
	Bio-diversity (Flora and Fauna)	Destruction/loss of habitats.	Neutral	Neutral	Long-term	Existing site of no significant ecological importance. Organic fertilizer to replace chemical fertilizer in accordance with S.I. 605 of 2017, as amended, no impact. Integration with existing farm enterprise. No additional infrastructure.	None
		Eutrophication	Positive	Neutral	Long-term	High quality development and storm water discharge systems. Nutrient balance / organic fertiliser substitution. Organic fertiliser will replace chemical fertiliser. No intensification of activities, over and above E.I.S.	slight
	Fresh Water / Groundwater	Risk of contamination	Neutral	Neutral	Long-term	Fertiliser planning / Buffer Zones / Codes of Good Practice applied (S.I. 605 of 2017, as amended, Customer Farmlands). No intensification of activities, over and above E.I.S.	Slight
	Landscape	Visual impact	Negative	Neutral	Long-term	Site relatively low set in landscape. Low finished floor level relative to average ground level. Well set back from the local road, integrated with and/or to the rear of existing farmyard. No additional infrastructure.	Slight
	Archaeology	Disturbance of archaeological finds	Neutral	Neutral	Long-term	No archaeological finds within this site. Site not located near to, or likely to impact on any archaeological sites. No additional infrastructure.	Neutral
	Climate	Contribution of greenhouse gases	Neutral	Neutral	Long-term	Pig production is less harmful than ruminant production in terms of methane. Organic manure will replace inorganic fertilisers eliminating manufacturing / transport energy use. Integration with existing farming activities. No intensification of activities over and above E.I.S.	None

Human Health / Population	Agriculture and land use	Fertiliser substitution	Neutral	Positive	Long-term	No loss of agricultural land (activity confined to existing site). Improves profitability by reducing costs and improving output. Integration with existing farming activities.	None
	Community	Application of manure	Neutral	Neutral	Long-term	Significant requirement for additional organic fertiliser. No intensification of activities or increase in organic fertiliser production over and above E.I.S.. No additional infrastructure.	None
		Vermin and pest infestation	Neutral	Neutral	Long-term	Control programme to be practiced on farm in line with Bord Bia requirements. Improved infrastructure.	None
		Fire Hazards	Negative	Neutral	Long-term	Fire points / extinguishers / staff training	None
	Traffic	Long-term increase in traffic.	Neutral	Neutral	Long-term	In-ward/out-ward traffic primarily during working hours. Minimise traffic volume by optimising load sizes. Good road infrastructure. No intensification of activities over and above E.I.S.. No additional infrastructure.	None
	Noise	Stock Noise at feeding/moving. Feed deliveries, manure removal	Neutral	Neutral	Long-term	Prioritise activities during working hours. Remote Location. No intensification of activities over and above E.I.S..	None
	Air	Generation of Odours	Neutral	Neutral	Short-term	Adherence to Code of Good Practice to Reduce Odour Emissions at Spreading. High standard of housing and management and washing between batches. Buffer zones from sensitive dwellings / areas. No intensification of activities.	None
	Tourism/ Ammenities	Landscape	Neutral	Neutral	Long-term	Site location will result in no adverse impact on the environment.	None
		Water Quality	Positive	Neutral	Long-term	High standard of development and management / Fertiliser planning / Buffer Zones / Codes of Good Practice applied / Integration with existing farming activities. No intensification of activities over and above E.I.S.	Slight
	Material Assets	Reduction in material / residential quality	Neutral	N/A	Long/ short-term	Site location will ensure that there is no negative impact on the material assets of the area.	None

#### 4 (8) Difficulties encountered in compiling the required information

The processes and technology involved in the operation of the activity are standard for agricultural/pig developments and well understood. In addition the main principles are substantially similar to that already in practice on site with the existing development. As previously detailed there is to be no intensification of activities on the farm, over and above that as previously detailed in the E.I.S. and permitted by Westmeath Co.Co., and/or alterations to the operational activities on the farm that would be likely to result in a potential for adverse environmental impact. 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 activity. As stated previously, this licence review and Environmental Impact Assessment Report, relate to the activity of a 625 sow (incl. Served gilt) integrated pig farm as previously approved by Westmeath Co. Co.

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

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

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

- (i) Provision of sufficient and safe access to the site and measures to avoid excessive soiling of the public road.
- (ii) Preservation of existing trees and hedgerows surrounding the site together so as to screen the installation from obtrusive view and to allow it to be absorbed into the rural landscape.
- (iii) Provision of a storm water drainage system to properly collect and discharge to field drainage all clean rainwater from roofs and clean surfaces.
- (iv) Provision of soiled water drains to properly collect any effluent or soiled water and divert it to the nearest soiled water tank.
- (v) The collection and the removal from the site of all manure. All organic fertiliser to be collected and allocated to customer farmers for use as an organic fertiliser in accordance with S.I. 605 of 2017, as amended.
- (vi) Appropriate collection and removal from the site of waste materials generated on the site. Record and maintain records of all consignments of waste despatched from the site in accordance with requirements..
- (vii) The collection and the removal from the site of all dead animals and all animal tissues. A small proportion of the animals maintained on the farm die prematurely. These carcasses are and will be stored in a covered sealed container on site, awaiting collection by an authorised contractor.  

College Proteins is an authorised contractor who regularly removes these carcasses, and any other such material to their authorised Animal By-Products plant at Nobber, Co. Meath, in compliance with existing requirements. Ensure collection of animal tissue from the site is in appropriate watertight and covered containers, and timely removal so as to ensure minimal generation or release of odours either at the site, or during transit to the disposal/recovery destination.
- (viii) Comprehensive cleaning and hygiene routine to minimise potential odour from the site.
- (ix) Specially formulated diets, including low protein formulation to maximise performance and reduce nutrient excretion.
- (x) Proper maintenance and inspection procedures to ensure that all feeding, water supply, storm water separation, manure management, and ventilation systems are

working to maximum efficiency, ensuring minimal wastage, minimum organic fertiliser/soiled water production and minimising energy (electricity) consumption.

(xi) Frequent removal from the site of organic fertiliser from the production pigs to minimise odour and ammonia emissions form the licensable activity.

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

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

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## 6. ENVIRONMENTAL MANAGEMENT PROGRAMME

### 6.1. Introduction

The applicant will implement and maintain a comprehensive monitoring programme on site to provide maximum protection for the environment. This plan will in effect be governed by the requirements of the E.P.A., as detailed in any Licence / Revised Licence issued to this farm, and by the applicant's requirements under environmental legislation such as S.I. 605 of 2017, as amended. This management plan will involve, but is not limited to, maintaining an organic fertiliser register and visual inspection of all storm water outlets.

Implementing this programme will ensure that there are no negative environmental impacts from the activities associated with the operation of the pig farm. Any recommendations of the planning authority will be complied with in relation to this Environment Management Programme.

### 6.2. Organic Fertiliser Management Programme

The applicant will implement and manage a programme for the allocation of organic fertiliser in each particular year. The main aspects of the Organic Fertiliser Management Programme are to ensure that the requirements of S.I. 605 of 2017, as amended are met in full by the applicant. This will include;

- The allocation of fertiliser to customer farmers for use in accordance with the requirements of S.I. 605 of 2017, as amended,
- Proper separation of all clean water on site, and the collection of all soiled water in the manure storage tanks.
- Continuous recording of all organic fertiliser transfers off the farm (as per the record 3 form developed by The Department of Agriculture, Food and The Marine), and submission of all records to The Department of Agriculture, Food and The Marine [as required.]

### 6.3. Environmental Monitoring Programme

(i) Work schedule for fixed structures.

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

(ii) Monitoring fixed structures for the following:

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

(iv) Monitoring and analysis.

- Storm water emission and/or surface water monitoring points to be visually inspected and recorded on a weekly basis, and sampled and analysed quarterly.
- Organic Fertiliser / Manure Storage Tanks – To be monitored and recorded as required for remaining storage capacity. Leak detection facilities to be installed under any new manure storage tanks and inspected on a weekly basis.
- Noise, Odour and Dust emissions not to cause an adverse environmental impact outside of the site boundary. As per the EPA license issued to this farm, specific requirements/conditions pertaining to odour/noise and dust are to be complied with.

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## 7 Summary

The licensable activity has been subject to Environmental Impact Assessment in accordance with requirements of the E.P.A. (as requested in correspondence dated 12<sup>th</sup> December 2019 as part of this Licence Review Application. This resulting E.I.A.R. has been prepared in order to provide the Agency with the necessary information to make a decision on this licence review application, and ensure that the application complies with the requirements of the EIA Directive 2014/52/EU

The licensable activity will make a positive contribution to the rural economy of Co. Westmeath and will serve to secure employment and secure the viability and competitiveness of the applicants' farm enterprise, as well as the wider pig farming industry. The activity will not give rise to any significant environmental effects. The activity will be operated in accordance with the details laid down in this E.I.A.R. and will adhere to conditions imposed as part of any revised / reviewed E.P.A. Licence for this farm.

Signed:



**Paraic Fay**  
BAgrSc

31/3/2021  
Date



**CLW Environmental Planners**  
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## Appendices

- Appendix No. 1 ~ Environmental Impact Statement 2011**
- Appendix No. 2 ~ E.P.A. Licence No. P0975-01**
- Appendix No. 3 ~ Environmental Protection Agency – Draft Guidelines on EIS – Project Type 13**
- Appendix No. 4 ~ Natura Impact Statement**
- Appendix No. 5 ~ Ammonia Impact Assessment Report**
- Appendix No. 6 ~ Odour Impact Assessment Report**
- Appendix No. 7 ~ Dept. of Agriculture – Minimum Specification for Screening belts for Farmyards and Farm Buildings – S 135**
- Appendix No. 8 ~ Site Characterization Form**
- Appendix No. 9 ~ Summary of 2020 Customer List**
- Appendix No. 10 ~ Site Layout Drawings**
- Appendix No. 11 ~ European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2017 – S.I. 605 of 2017**

## ***Appendix No. 1***

# ***Environmental Impact Statement 2011***

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## **Appendix No. 2**

### **E.P.A. Licence No. P0975-01**

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## **Appendix No. 3**

# **Environmental Protection Agency – Draft Guidelines on EIS – Project Type 13**

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## **Appendix No. 4**

### **Natura Impact Statement**

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## **Appendix No. 5**

# **Ammonia Impact Assessment Report**

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## **Appendix No. 6**

# **Odour Impact Assessment Report**

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## **Appendix No. 7 ~**

### **Dept. of Agriculture – Minimum Specification for Screening belts for Farmyards and Farm Buildings – S 135**

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## **Appendix No. 8**

### **Site Characterization Form**

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## **Appendix No. 9**

### **Summary of 2020 Customer List**

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## **Appendix No. 10**

### **Site Layout Drawings**

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## **Appendix No. 11**

# **European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2017 –S.I. 605 of 2017**

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