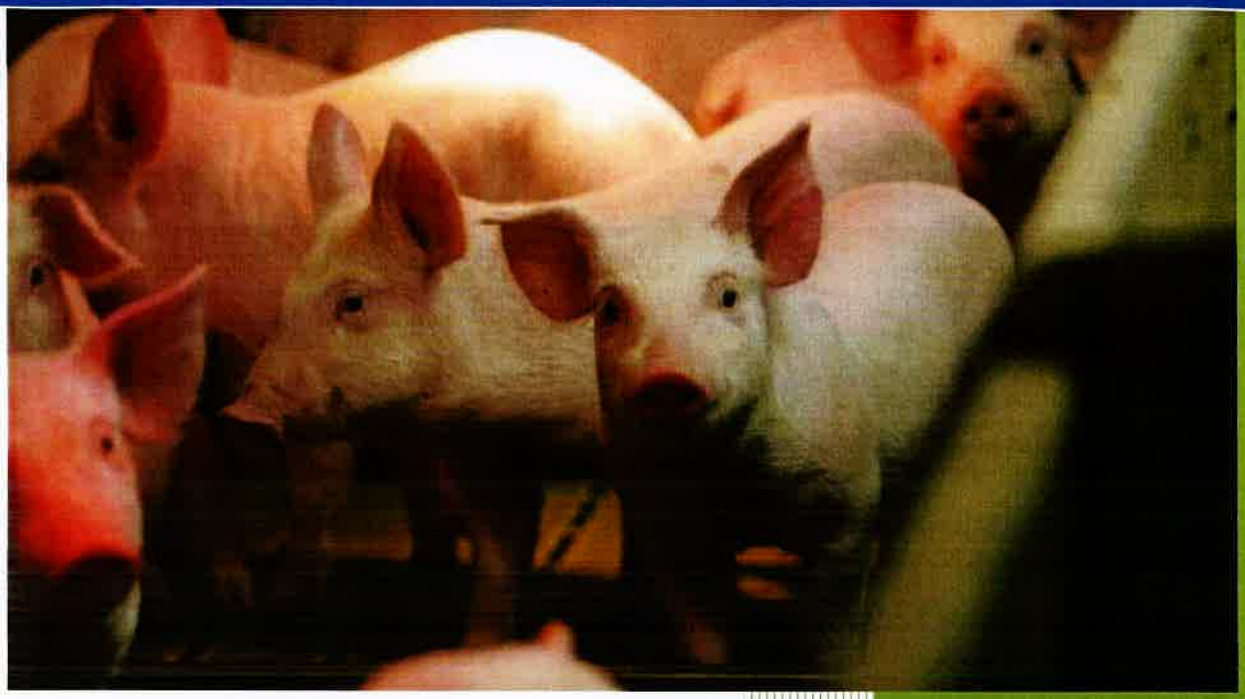
Bogue Pigs Unlimited Company

ENVIRONMENTAL IMPACT ASSESSMENT REPORT



Planning permission to demolish 19 No. existing pig houses and ancillary structures, and, to construct 5 No. new pig houses, and an extension to 1 No. existing pig house together with all ancillary structures and associated site works,;

at:

BALLINRINK,
OLDCASTLE,
CO. MEATH

On behalf of:

BOGUE PIGS UNLIMITED COMPANY
DREENAN,
CAVAN
CO. CAVAN.

January 2026

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1. Non - Technical Summary

1.1 Introduction

This Environmental Impact Assessment Report (E.I.A.R.) 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. This E.I.A.R. has been prepared after an Environmental Impact Assessment (E.I.A.) of the existing and proposed development in accordance with the Planning and Development Acts 2000, as amended, Planning & Development Regulations 2001, as amended and the Protection of Environment Act 2003.

This Environmental Impact Assessment Report relates the proposed development of replacement and/or additional pig houses together with all ancillary structures, and all site works associated with the above development at Ballinrink, Oldcastle, Co. Meath, to be completed on an existing pig farm site. This E.I.A.R. was completed to assess the proposed development in line with the Planning and Development Regulations / requirements and to comprehensively address any potential concerns of Meath Co. Co.

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.

The proposed development as outlined hereafter to be completed by the applicant is to be completed in lieu of previous developments approved under Planning Ref: 24/60324 and in conjunction with a re-alignment (rather than an expansion of) of the operation of the existing farming practices on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

Notwithstanding the limited impact of the proposed alteration, the proposed development (and specifically the increase in sow numbers) is in excess of 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 that 200 places for sows in an integrated unit.

This E.I.A.R. has been completed in accordance with the Planning and Development Act 2000, (As amended) and relates to a planning application on behalf of ***Bogue Pigs Unlimited Company,*** Ballinrink, Oldcastle, Co. Meath, for permission to complete the:

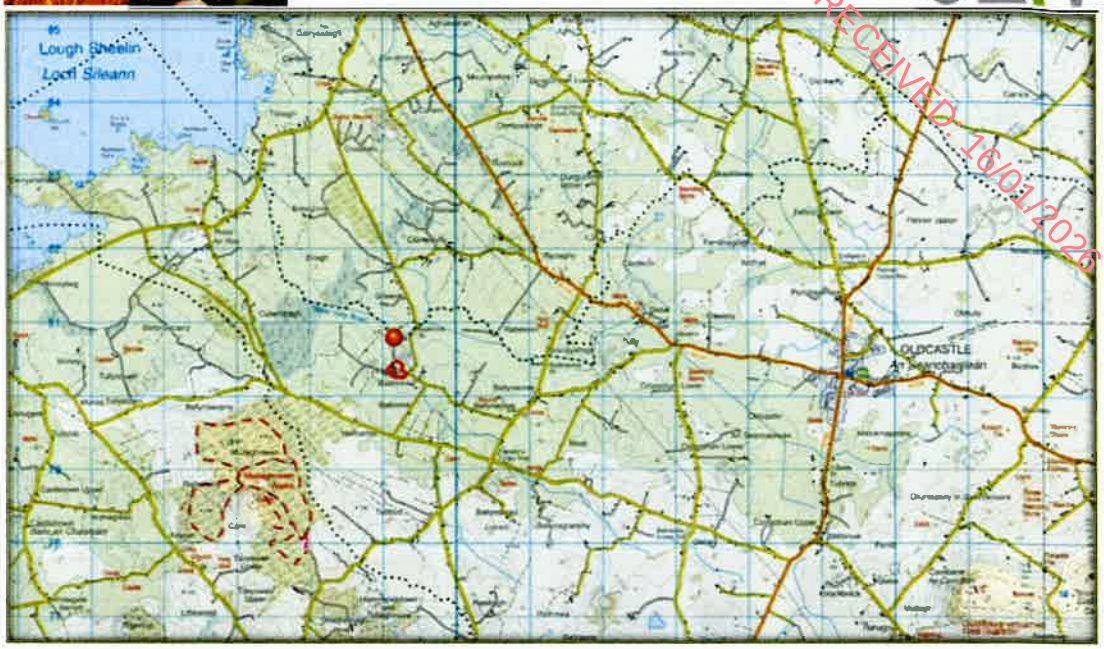
- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works

arising from the above development at Ballinrink, Oldcastle, Co. Meath (Grid Reference: ITM E649112 N780362). The development is to be completed in conjunction with the proposed re-alignment of the operation of the existing farming practices, from the current 280 Sow integrated farm to a 640 Sow (excl. Served gilt) breeding farm, which upon completion will remain below the average sized Irish Pig Farm.

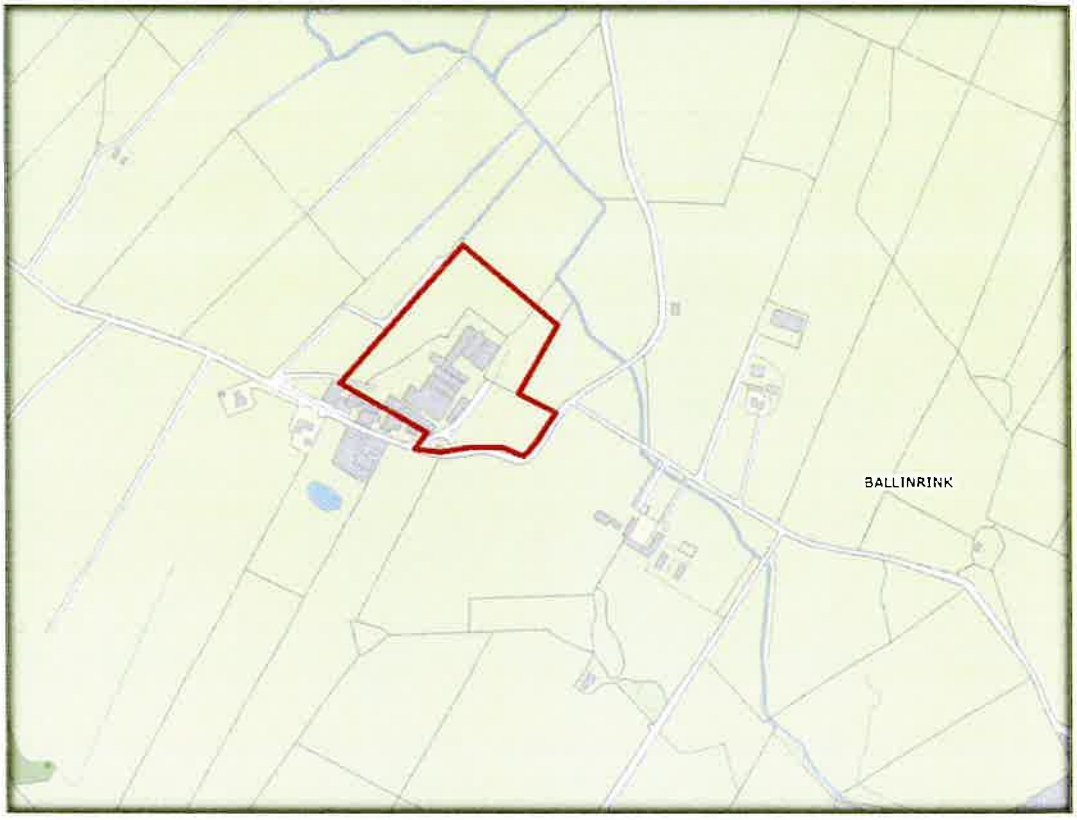
1.2 Site Location

This site of the proposed development/farm is an existing pig farm site operated by the applicant. The site of the proposed development, is set back from the public road replacing the existing developments and in lieu of the previously approved developments. The site is integrated into the existing pig farm site, on c. 4.05 HA, in the town land of Ballinrink, and accessed via the existing roadway used to access the existing adjacent farmyard. The site is c. 3.7 Km from the regional route the R154. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

The main land-use surrounding the application site is agriculture and improved agricultural grassland is the dominant habitat locally and this habitat largely surrounds the site. Other natural habitats represented in the area include semi-improved and wet grasslands, broadleaved woodlands (Mullaghmeen Woods), hedgerows, treelines and watercourses. Site location maps can be seen below.



Map showing the Location of the Proposed Development Site (Pinned)



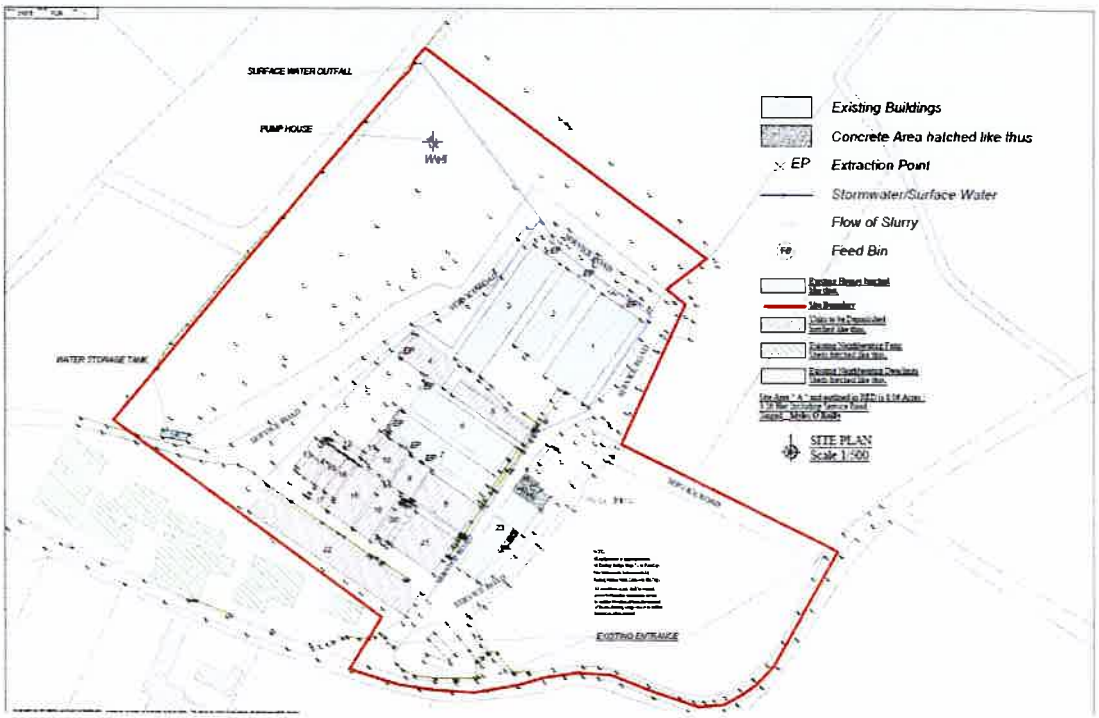
Map showing the Location of the Proposed Development Site (Outlined in Red).

Location of Proposed development

Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats © Google

1.3 Description of Existing / Proposed Development

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).



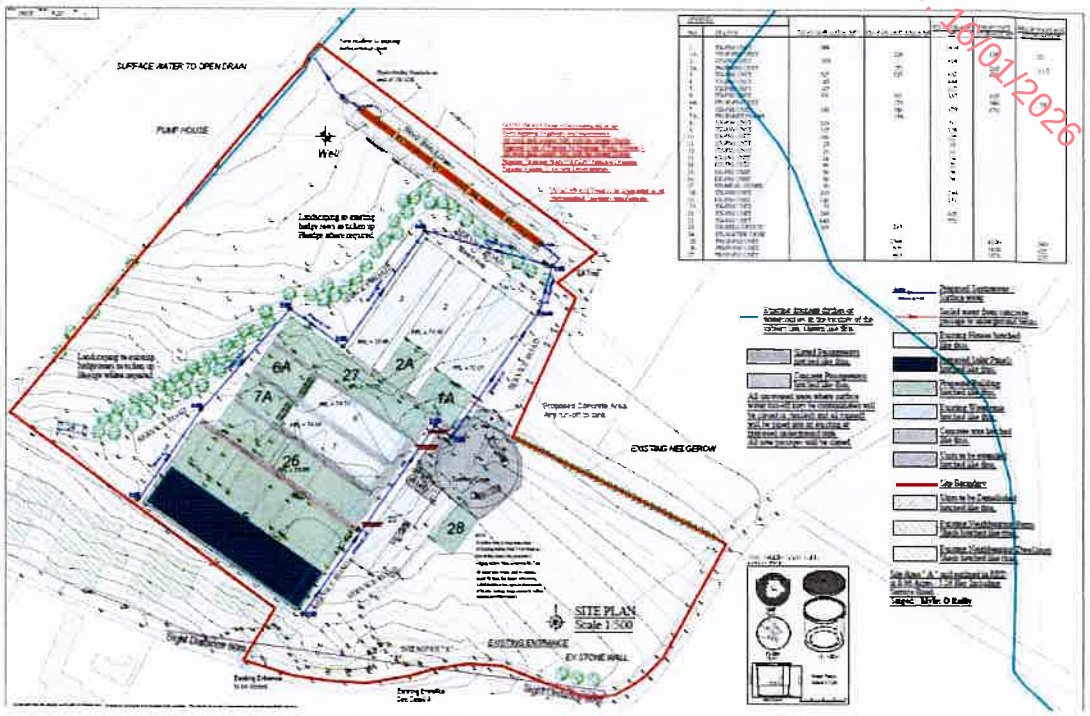
Existing Farm Layout.

While existing planning permission (Ref: 2460324) for the upgrading/replacement of existing accommodation with no alterations to the stock numbers on the farm remains in place, additional works are required to;

a) Facilitate a change to a specialised pig breeding farm (thus increasing sow numbers, but removing the grower/finisher pigs to alternate accommodation elsewhere.
b) replace some more of the aged buildings to further improve standards on the farm, maximise animal performance and minimise emissions/resource use to improve overall efficiency, and,
c) provide the additional accommodation necessary for the proposed alteration of activities on the farm in line with current animal welfare requirements.

The change to a breeding farm will allow the farm to implement a higher bio-security protocol on the farm and utilise the available resources more efficiently.

Layout of existing / previously approved pig farm development (Meath Co. Co. Ref: KA2460324). *(Note: These works have not yet commenced.)*



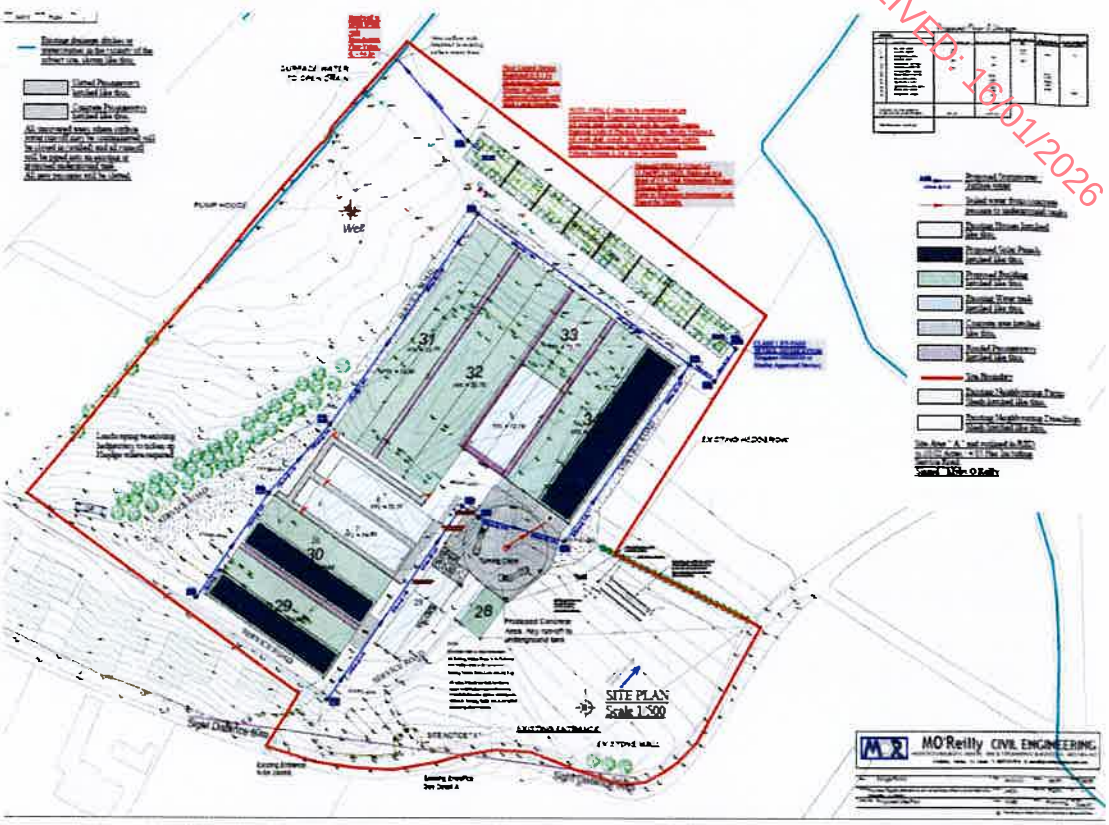
It has previously determined that it is necessary to modernise the infrastructure on the farm as per planning ref. 24/60324. At this juncture, and further to a more in-depth review of the future operation of the farm (on top of the infrastructural requirements needed) it has also been deemed necessary to plan for the future viability of the farm by providing for a sustainable alteration/specialisation of activities on the farm, to enhance bio-security on the farm and specialise in a pig breeding farm, producing high quality weaners for transfer to rearing farms elsewhere.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (altering from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

The development is to be constructed in accordance with, and to comply with, S.I. No. 311 of 2010 EUROPEAN COMMUNITIES (WELFARE OF FARMED ANIMALS) REGULATIONS 2010. The proposed development will encompass;

- the proposed pig houses to comply with the above mentioned regulations, and,
- all ancillary structures and associated site works necessary for the construction, operation and management of the proposed farm development.

Layout of existing / currently proposed pig farm development.



The design, layout and operation of the proposed development will also comply with the provisions of S.I. No. 588 of 2025 , EUROPEAN COMMUNITIES (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS) REGULATIONS 2025 , commonly referred to as the Nitrates regulations, and BREF (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 pig or pigs) requirements.

Bogue Pigs Unlimited Company will operate and manage the proposed development. This proposed development will be modern and efficient, and will be fully compliant with the requirements of animal welfare, bio-security and environmental legislation, and D.A.F.M. Specifications for Livestock buildings and associated organic fertiliser storage.

The proposed development will involve the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works

together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath. The development is to be completed in conjunction with an alteration/specalisation of the operation of the existing farming practices as outlined in this planning application and E.I.A.R..

In conjunction with the physical development on the farm stock numbers on the farm will be revised from the current 280 Sow (ex. served gilts) integrated pig farm;

- to a 640 Sow (excl. served gilts, as per definition of a sow as per P.O.E. Act.) breeding pig farm, rearing pigs to c. 35Kgs.

While there will be an alteration in the numbers of stock on the farm, the proposed revisions to the operational practices on the farm will be planned and completed in a sustainable manner, and the proposed stock numbers will facilitate the farm in increasing sustainably, specialising as a pig breeding farm (with no increase in intensification as previously detailed) and represents a significant capital investment in this pig farm site.

The development will occur on an existing long established pig farm site at Ballinrink, Oldcastle, Co. Meath, and will result in an alteration in stock numbers on the farm progressing from a c. 280 Sow (ex. served gilts) integrated pig farm to a c. 640 Sow (excl. Served Gilts) breeding pig farm. The proposed development and subsequent operation of the farm will be carried out in an environmentally friendly, sustainable and welfare compliant manner. It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

This proposed development is essential to achieve improved efficiencies from all of the investments on-site and in order to ensure the future viability and competitiveness of this farm and the applicants farming activities. Improvement in production efficiencies and performance are dependent on provision of adequate top quality housing and welfare in tandem with modern feeding and ventilation systems, improved bio-security measures and optimum animal health, welfare and genetics.

The farm upon completion of the proposed development will operate as a specialised pig breeding farm. It is envisaged that this upgrading and alteration/specialisation of facilities can be accommodated within the existing site subject to the completion of the currently proposed works;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works

arising from the above development at Ballinrink, Oldcastle, Co. Meath.

The planned changes will improve the operation of the farm and help optimise the return to the applicant. The proposed developments as outlined hereafter will seek to replace the modernization programme already proposed/previously approved by Meath Co. Co.

and facilitate the proposed specialisation of activities ensuring that it is welfare compliant, and achieves the highest standards in terms of environmental protection, animal performance, efficiency and bio-security.

The purpose for which this Environmental Impact Assessment Report has been completed is in support of a planning application for the proposed development as required by the planning and development regulations, as this proposed development is in excess of the thresholds as specified 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 that 200 places for sows in an integrated unit.

This farm currently operates as a c. 280 Sow (ex. served gilts) integrated pig farm, and while being maintained over the years is in need of significant investment (as evidenced by the previous application and grant of permission) having been built since the nineteen seventies. It is the applicant's intention to re-develop this site and progress same towards a 640 Sow breeding pig farm, with all pigs moved off at c. 35 kg (as opposed to the current practice or rearing pigs to market weight) , and in effect complete the modernization of both the infrastructure and operational practices on this farm.

While the currently proposed developments will provide for a sustainable development of activities on the farm, with no significant adverse impacts, the current proposals, including compliance with incoming animal welfare requirements will increase animal welfare standards, and allow this farm to develop as a specialised pig breeding farm, in order to operate successfully, efficiently and to the highest standards (including maximising bio-security, as independent breeding and rearing sites have bio-security advantages) into the future.

This E.I.A.R. will form part of 1 No. planning application to be submitted to Meath County Council on behalf of Bogue Pigs Unlimited Company, Ballinrink, Oldcastle, Co. Meath, for permission to carry out the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works

together with all ancillary structures and associated site works arising from the above development at Ballinrink, Oldcastle, Co. Meath.

The applicant has decided to progress this farm towards a 640 Sow breeding farm to operate an enclosed herd health policy and maximise the health status of the sow herd, improve pig performance and overall efficiency of the farm, and make the necessary provisions to comply with animal welfare and environmental requirements. All pigs produced will be moved off-site at c. 35 kg.

- ***Current Development :*** The existing farm operates as a c. 280 Sow (ex. served gilts) integrated[1] pig farm at Ballinrink, with all pigs produced on the farm reared to market weight. Proposals for the upgrading of same, with no alteration to the operational scale of the farm have been agreed with Meath Co. Co. under planning Ref: 24/60324.

- ***Proposed Development :*** The farm will develop as a c. 640 Sow (excl. Served Gilts) high health status breeding farm with all pigs (within the exception of those being retained as breeding stock) being moved off the farm at c. 35 kg's.

The proposed developments are deemed necessary for the future economic viability of this farm, to improve bio-security and the health and welfare of the stock on the farm, to maximise the return from the high genetic merit stock, and to ensure that the farm becomes more competitive in order to survive into the future. The proposed investment in new housing will build upon the highly experienced staff and will further improve the environmental and animal welfare characteristics of the previously approved development, and will facilitate a sustainable alteration/specialisation of activities on the farm.

The proposed developments will be completed in compliance with animal welfare regulations (known as S.I. No. 311 of 2010) and the Nitrates Regulations, (enacted in Ireland by S.I. 588 of 2025). It will allow for the necessary developments to facilitate the modernisation (both infrastructural and operational) of the existing pig farming activities on this farm and allow for improved management practices, bio-security and overall herd health.

The farm, and site of the proposed development is located, in north Co. Meath, close to the border (c. 0.35km) with Co. Cavan. The site in question is approximately 4.05ha and it is located in a rural area within the townland of Ballinrink. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

The proposed developments will provide the required housing, manure storage facilities and ancillary structures to allow the farm operate as a c. 640 Sow (excl. Served Gilts) breeding pig farm , ***but to a higher environmental and animal welfare standard.*** All pigs produced on the farm, will be reared to 35kg (as opposed to the nature and operation of the existing farm where all pigs are reared to market weight).

Note: 1. An integrated farm is a farm where pigs are born and reared to market weight.

The proposed developments (both infrastructural and operational) will be located on the site of, and/or adjacent to the existing pig farm structures, will replace those developments previously approved under Planning Ref: 24/60324 and are as highlighted on the accompanying drawings. These proposals are being sought to,

- Improve the quality of animal housing and manure storage facilities on the farm.
- Improve the health status of the pig herd by allowing time for a batch type production system (i.e. all in/all out) and weekly routine washing procedures in the farrowing/weaner accommodation.
- Re-develop, consolidate and sustainably develop this farm, towards a modern and efficient specialised pig breeding farm, so as to ensure that pig production at this farm is carried out in an economically/financially viable fashion and in an environmentally friendly manner well into the future.
- Ensure compliance with animal welfare recommendations with regard to stocking densities etc.
- Provide adequate space in order to rear all pigs to market weights.
- Optimise manual labour requirement and make stockmanship the key to efficient welfare conscious production, as well as building on recent operational and genetic improvements made by the applicant.

It is the intention of the applicant to operate the farm with the uppermost regard for environmental protection while at the same time implementing modern welfare and environmentally friendly management processes on the farm.

Modernisation/consolidation is an essential part of viable sustainable pig production. The structures for which permission is being sought incorporate modern design concepts in the areas of animal welfare, slurry storage, insulation, ventilation and environmental protection in the operation of the farm.

Improvement in production efficiencies and performance is dependent on provision of adequate top quality housing and welfare in tandem with modern feeding and ventilation systems and top quality genetics.

1.4 *Organic Fertiliser Production and Storage*

The management of organic fertiliser and the efficient use of the nutrients contained therein is a significant factor in developing pig enterprises. Organic manure production will be substantially unchanged notwithstanding the alteration in stock numbers. ***All manure produced on the farm will continue to be utilised on the customer farmer's agricultural lands as an organic fertilier to replace/substitute for existing organic/chemical fertiliser use, as part of a fertiliser substitution programme in line with the fertiliser application rates as permitted/athorised by S.I. 588 of 2025 .*** These lands have an agronomic requirement for this organic fertiliser.

Organic manure production based on the occupancy rate of c. 280 Sow (ex. served gilts) integrated, equals c. 5,794.88 m^3 per annum, as per S.I. 588 of 2025 . This will be essentially unchanged at c. 5,790.72 m^3 upon completion of the proposed developments. Manure output will be managed in a appropriate, environmentally and welfare friendly manner and in accordance with S.I. 588 of 2025 . As will be detailed later in this E.I.A.R. the applicant has the capacity to accommodate the organic fertiliser produced on this farm as detailed in the accompanying fertiliser plan, albeit the preference will be to supply the existing customer farmers as per normal from the farm.

The net ***organic manure storage capacity*** on the farm will increase by c. 5,500 m3, from c. 12,838m^3 as previously approved to c. 18,500 m^3 on completion of the proposed works. This storage capacity will ensure that organic fertiliser produced on the farm is spread only under favourable soil and climatic conditions, and is well in excess of the 6 months storage as required by S.I. 588 of 2025 .

Organic fertiliser / manure produced on the farm will be ***utilised*** on agricultural lands that have an agronomic requirement for this fertiliser. All new manure storage structures will be constructed to Department of Agriculture, Food and The Marine Standards, and in line with Meath County Council requirements. Should there be any discrepancy between the buildings as proposed, and the Dept. of Agriculture, Food and the Marine or Meath Co. Co. requirements, the latter shall take precedence. Due to the mitigation measures to be implemented on site, i.e. the quality and adequacy of manure storage facilities and the significant demand for organic fertiliser, manure produced on this site will not have a significant adverse environmental impact on the site and/or surrounding area.

1.5(i) Utilisation of Organic Fertiliser

The customer farmers are experienced tillage and grassland farmers. They currently utilise organic fertiliser (such as that produced on this existing pig farm and pig & poultry farms elsewhere), along with additional chemical fertiliser to meet the agronomic requirements of their crops. This fertiliser is, and will continue to be, replaced (in part only, as the proposed development is not of sufficient scale to replace all of the customer farmers fertiliser requirements) by organic fertiliser to be produced on the applicant's farm as a result of the existing and proposed development. This experience will be of significant advantage with regard to the management and utilization of organic fertiliser from this farm which will not increase as a result of this proposed development development. ***Not alone have the customer farmers (incl. the applicant as detailed) the capacity to utilise all of the organic fertiliser from this proposed development in accordance with S.I. 588 of 2025 , the level of nutrients to be produced therein is only a small proportion of those required by the customer farmers, and while it will*** continue to replace/reduce chemical fertiliser imports onto their farms, the outstanding balance will have to be made up by other fertiliser sources.

The lands currently farmed by the customer farmers are tillage lands, utilised to produce wheat and barley (along with other crops such as beans, Oil Seed Rape) that is used by the animal feed industry, to supply farms such as the proposed development, and/or grassland farms mainly involved in drystock enterprises. In turn these lands will continue to be supplied with organic fertiliser from this development to be used as a fertiliser source on these lands. As can be seen from the information provided, referred to as a customer list in keeping with standard terminology for this type of development, the customer farmers (in this case the applicant) farms in excess of 290 hectares of utilisable agricultural area available for the application of organic fertiliser. These lands require in excess of >200 % of the fertiliser that would be produced on this site, both as it exists currently and upon completion of the proposed development. This is in addition to the customer farmers currently supplied from this farm.

All information pertaining to the customer farmers and all other information as required by this directive will be maintained on-site and will be made available for inspection as required. This is in line with the requirements and stipulations of S.I. 588 of 2025 , European communities (Good Agricultural Practice for Protection of Waters) Regulations.

1.5(ii) Application of Organic Fertiliser

Notwithstanding that the proposed customer farmers (existing and proposed) have sufficient capacity to utilise all of the organic fertiliser, any additional farmers (referred to as customer farmers) who may seek a supply of organic fertiliser from this farm upon completion of the proposed development can be included. All customer farmers will be advised as to their legal requirements to be complied with when applying organic fertilisers to land. In addition the applicant will ensure that all information required to be forwarded to the customer farmers upon receipt by them of organic fertiliser from this farm, is forwarded as soon as practicable thereafter. These requirements including the

requirements pertaining to the application of animal manures to land are as outlined in S.I. 588 of 2025 .

Odour nuisance will be minimised and surface and ground waters protected by using the correct application rates, spreading at the correct times under suitable conditions and strict adherence to cordon sanitaires and the Codes of Good Practice for manure spreading, as outlined in S.I. 588 of 2025 . This fertiliser planning will result in fertiliser substitution, not addition, and all farmers will be advised that Low Emission Spreading Systems (LESS) are implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop, and same is prescribed by S.I. 588 of 2025 .
As previously detailed there will be no alteration in overall organic fertiliser volume as a result of the proposed development, which can be continue to be utilised on lands farmed by the existing/proposed customer farmers. The potential impact of same will also be mitigated by improved feed formulation minimising nutrient output/content. Low protein diets will minimise any potential emissions.

The storage capacity to be provided will afford the customer farmers the capacity to integrate the utilisation of this organic fertiliser into their farming activities under optimum conditions, ensuring that same is only spread when weather and ground condition are appropriate and at the optimum time when same is required by the crop. Odour nuisance will be minimised and surface and ground waters protected by, using the correct application rates, spreading at the correct times under suitable conditions and strict adherence to cordon sanitaires and the Codes of Good Practice for manure spreading, as outlined in S.I. 588 of 2025 . This fertiliser planning will result in fertiliser substitution.

1.6 Population/Employment/Human Health

This pig farm has had, and will continue to have, a positive effect on population in the area. The pig farm will employ 3-5 people directly, leading to an indirect employment nationally of c. 40 people. The farm will result in additional employment during the construction of the proposed development. The farm profitability of the customer farmers receiving pig manure is boosted by cheaper fertiliser nutrients replacing imported energy demanding inorganic nutrients. This farm will have no adverse effect on tourism in the area of the site due to good environmental management practices operated on the farm, the farm's rural location and its tradition as a pig farm.

Agriculture is the mainstay of the local economy. Within the country the pig industry is a key component of this. The pig industry provides an important source of employment including local pork processing facilities, feed mills, equipment supply companies, haulage contractors and other service industries.

An investment/development of the nature proposed will secure a significant number of existing jobs, for the local community well into the future. 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, and minimised by the proposed investment in new/replacement infrastructure. There are no significant high risk/hazardous products used, produced and/or released by the proposed development 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.

Amenity Areas: The existing pig farm / proposed development site is not located close to or likely to adversely impact on protected views or prospects, as listed in the Meath Development Plan 2021-2027. The proposed development will be set low in the surrounding land topography, nestled into the existing landscape.

The proposed pig farm site is not located close to or likely to adversely impact on;

- areas of major / secondary tourist attractions,
- paths, cycle-ways and/or driving routes,
- key view points, and/or,
- the extent of any views,

as listed in the Meath Development Plan 2021 - 2027.

This site is located in an area classified as having an high landscape character value (mid range in the scale from low to exceptional). The proposed development will be integrated with the surrounding land topography and nestled into the existing landscape, surrounding land topography and existing farm building complex. Any potential adverse visual impact will be minimised by the integration of the proposed development into an existing pig farm site and wider agricultural building landscape, and by the use of sympathetic finishes and colours to integrate this development into the site and local area.

The proposed development, which includes replacement facilities on the farm for the rearing of pigs, along with a sustainable alteration in operational activities on the farm, is not located within or likely to affect any of these areas.

1.7 Soil

The adequacy and quality of storage to be provided and the continued allocation and utilisation of all fertiliser to be produced on this farm in accordance with S.I. 588 of 2025 will ensure that this farm has no negative impacts on farmland. This storage capacity will ensure that organic fertiliser is spread only under the most favourable soil and climatic conditions, preventing any soil structural damage.

The continued allocation and utilisation of all fertiliser produced on this farm in accordance with S.I. 588 of 2025 , (to continue to replace chemical fertiliser that would otherwise have to be used on, the customer farms) as part of the existing fertiliser substitution programme, will ensure that this proposed development has no negative impacts on the farmland and/or the wider environment. The customer farmers / applicant will ensure that organic fertiliser is spread only under the most favourable soil and climatic conditions, preventing any soil structural damage. Hydraulic and chemical loading will not be exceeded due to the fact that all organic fertiliser is to be applied in accordance with S.I. 588 of 2025 thus preventing nutrient accumulation and as part of a fertiliser substitution programme. As part of this the applicant will ensure that any additional farmers, if they arise, receive a copy of all relevant information as required by, and referred to in, S.I. 588 of 2025 . The return of as much of the manure as practicable to the land that was used to grow the grain used in the Irish animal feed industry, and /or replace imported fertiliser use on grassland is the ideal cyclical economy for the utilisation of the nutrients contained in the organic fertiliser to be produced on this farm, and will help off-set greenhouse gasses associated with energy intensive chemical fertiliser manufacture.
Organic fertilizers play a significant role in a circular economy by utilizing by-products as resources, reducing reliance on synthetic fertilizers and minimizing environmental impact. They promote nutrient recycling, closed-loop systems, and sustainable agricultural practices.

1.8 Hydrology and Hydrogeology (Surface and Ground Water)

The application site is located within the Upper Shannon Hydrometric Area (26) and River Catchment (26F), and the Inny Sub-Catchment (010) and Sub-Basin (040). There is an open drain present at the north-western corner of the application site (approximately 58m west of proposed construction works). Clean surface water from the site is being directed to this drain. This drain connects via a small stream to the River Inny, which is 339m north of the application site. The River Inny flows in a north-westerly direction and it enters Lough Sheelin at a point 3.5km north-west of the application site.

The EPA have classed the ecological status of the Inny River and its tributaries at points close to the application site as moderate status. Lough Sheelin is also noted to be of moderate status. Under the requirements of the Water Framework Directive, this is

unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027.

Bogue Pigs Unlimited Company will monitor storm water run-off from the site on a weekly basis. This continuous monitoring, in addition to the mitigation measures put in place, will identify any adverse effect on surface water quality in the area of the farm. This monitoring will include any storm water discharge points that arise as a result of this exiting and/or proposed development. Soiled water will be directed into the organic fertiliser storage tanks. All proposed organic fertiliser storage facilities will be constructed and monitored in line with Meath Co. Co. and Department of Agriculture requirements.

The applicant and all customer farmers are obliged to farm in accordance with S.I. 588 of 2025 or any subsequent amendment to/derogation from same and this applies and, will apply, to the organic fertiliser utilised by them from this pig farm, or that produced on their own farms. This will have a long-term benefit ensuring that there is no adverse impact on water quality in these areas. The E.P.A., Meath Co. Co., and/or the local fisheries board carry out water quality monitoring on an ongoing basis in the area. While the proposed developments will result in an alteration to the activity currently carried out on the farm compliance with S.I. 588 of 2025 and S.I. 311 of 2010 will ensure that the applicant meets all of their requirements with regard to animal welfare, and environmental regulations. It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

The proposed developments will be completed to the highest standards and in line with Meath Co. Co., E.P.A. and Department of Agriculture, Food and The Marine requirements. Surface and ground waters will remain protected due to the exclusion of any unsuitable land, spreading only at suitable times and adherence to the Codes of Good Practice for manure spreading as outlined in S.I. 588 of 2025 .

Storm water discharges, which will discharge through a stormwater drainage system, will be, inspected on at least a weekly basis. Soiled water will be minimised by moving pigs on solid / slatted passageways and all soiled water will be directed into the manure storage tanks. Surface and ground waters around the pig farm will remain protected, and will not be affected by the proposed development due to the quality and adequacy of storage to be provided on-site, a dedicated slatted and/or covered passageway(s) for pig movement on the farm and the separation of clean and soiled waters. The proposed new housing will be built to current Department of Agriculture, Food and The Marine standards, and will have modern feeding and ventilation systems in the house, and will serve to improve the overall quality and quantity of manure storage structures on the farm. All new manure storage tanks will have leak detection systems installed.

1.9 Air / Climate

All practicable steps, such as washing routines etc., have been planned for and will be taken so as to minimise odour from the site. The rural setting of the farm (incl. proposed developments), and, location distant from local residences (>275m from the site boundary, excl. the adjoining dairy farmer and family members of the original pig farm owner.) will ensure no effect on human beings. The currently proposed development will also minimise any potential ammonia and N emissions, and thus minimise / reduce any potential impact on the closest Natura 2000 sites.

An ammonia impact assessment utilising Scail Agricultural data has been completed as part of this E.I.A.R. and this has confirmed that the development as proposed, replacing the existing development activities will comply with the applicable thresholds / standards. The results of the ammonia impact assessment process show that designated habitats, will not be aversely impacted and the proposed development complies with recently (2024) published E.P.A. guidance on this matter, thus, any areas of ecological interest will not be adversely affected from the ammonia emissions for the operation of the farm. Projected ammonia emissions will decrease by c. 26% due to the revisions to the stock numbers on the farm.

An odour Impact assessment (including a comparison of the existing development and the currently proposed development) has been completed as part of this E.I.A.R. and this has confirmed that the development as proposed, will comply with the applicable thresholds / standards, will reduce the current predicted impacts at sensitive locations and/or will not be likely to cause a significant adverse environmental impact.

As the pigs will be maintained in a controlled environment within the existing and proposed developments, the operation of the farm is not directly significantly susceptible to climate change, however climate change may impact on energy use associated with 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 pigs, as same may impact on crop yields etc.

1.10 Visual Aspects and Landscape

The farm, and site of the previously approved / proposed developments is located in north Co. Meath. The site in question is approximately 4.05 ha and it is located in a rural area within the townland of Ballinrink. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

Agriculture is the main land-use in the area surrounding the application site and the dominant habitat locally is improved agricultural grassland. Other habitats represented in the area include tillage / arable lands, unimproved – neutral grasslands, hedgerows, treelines and watercourses. The proposed developments are to be carried out on and/or adjacent to the existing pig farm structures. Pig farming activities have been carried out on and/or adjacent to this site since the early nineteen seventies.

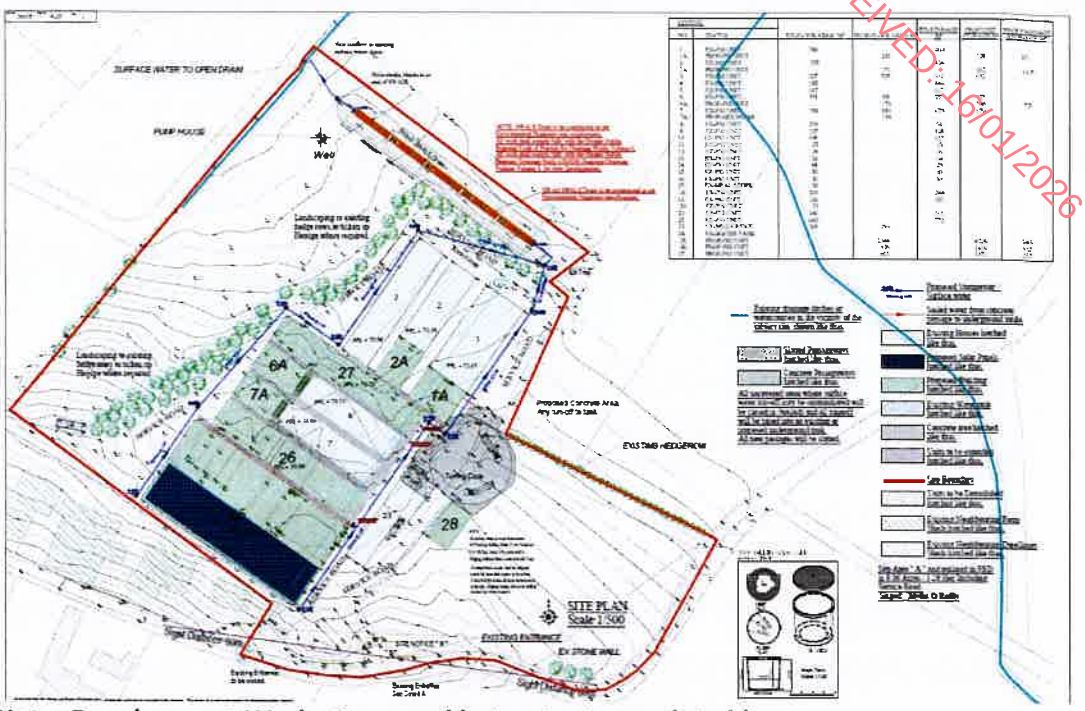
The existing pig farm is on a sloping site(s), which falls towards the northern boundary. The proposed development will be located directly adjacent to and/or replacing the existing pig farm structures, and is substantially similar to the nature, location and design of the developments as previously proposed and for which planning permission currently remains valid. As a result there will be no significant adverse visual impact on the surrounding area. This will ensure that there will be no visual impact on the local environment from the proposed development, which will be integrated into the existing built environment.

Location of Proposed development

Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats © Google

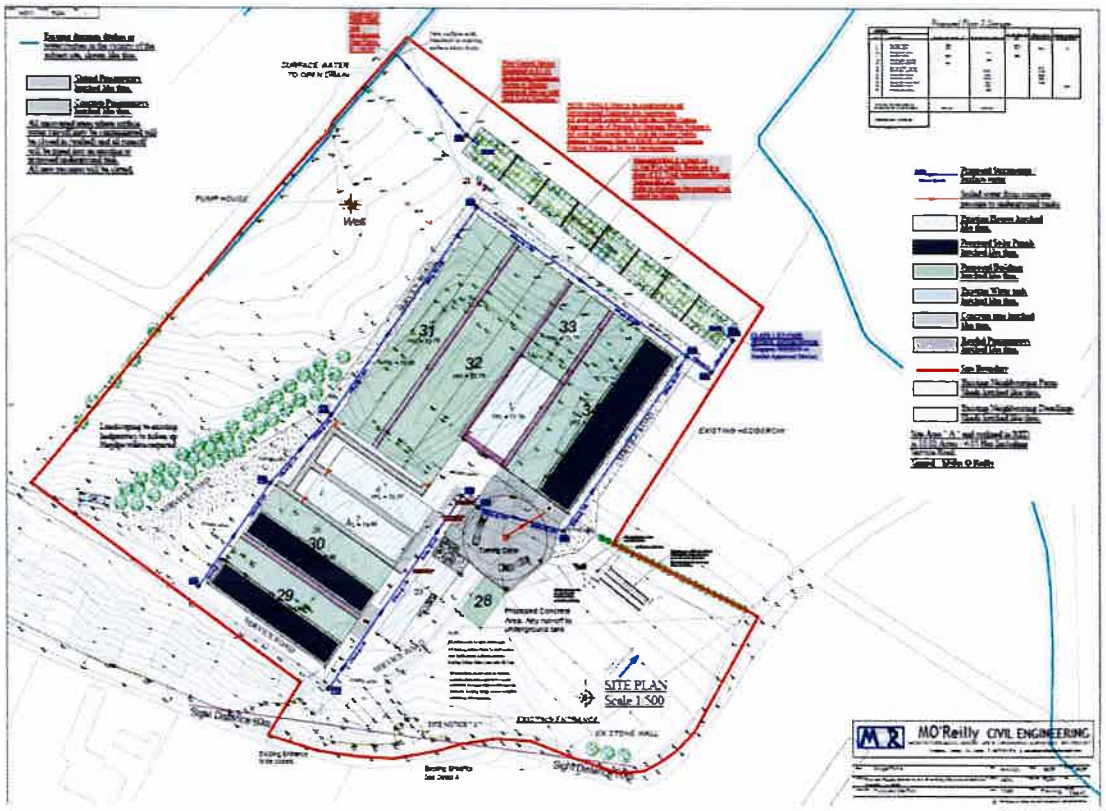
The site is not located near to or likely to affect any Protected views, Tourist attractions, Areas of High Amenity, N.H.A.'s, S.A.C.'s, S.P.A's or monuments/places of Archaeological interest as listed in the Meath County Development Plan 2021-2027.

Layout of previously approved pig farm development.

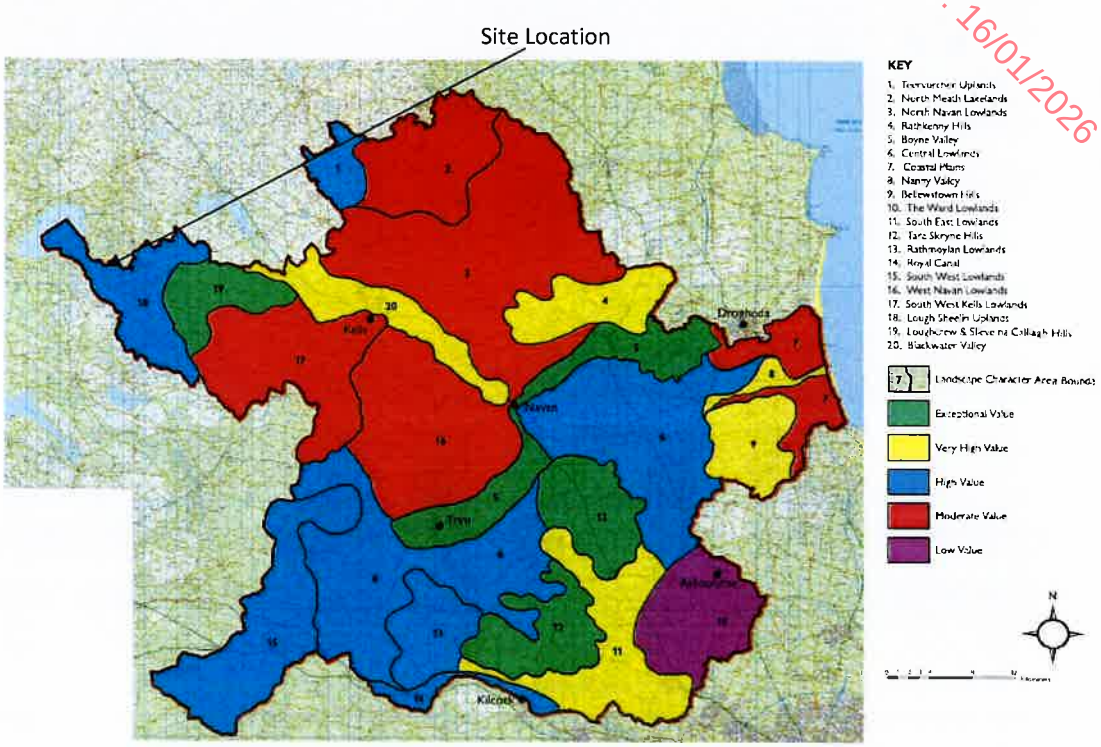


(Note: Development Works Approved but not yet completed.)

Layout of existing / proposed pig farm development.



In the Meath County Development Plan 2021-2027 (Appendix No. 5 ~ Landscape Character Assessment), the existing development is located within the Lough Sheelin Uplands (Area 18).



The agricultural nature of the proposed development and the site, and its location integrated into the existing agricultural holding and wider landscape, will ensure that there will be no visual impact on the local environment from the proposed development. The site location has been selected so as to integrate (in so far as is practicable) with the other existing farmyard structures.

1.11 Noise

It is not anticipated that noise at this site will have any adverse impact on the local environment and /or any potentially sensitive locations which are all c. 100m +from the farm boundary. There will be no change to the range of practices/activities to be carried out on the farm, and the proposed development will result in a shift of activities away from the closest residential locations.

As detailed in this E.I.A.R., and notwithstanding the alteration in the production system on the farm (from a fully integrated pig farm, to a breeding pig farm) there will be no intensification of activities as a result of the proposed developments.

1.12 Bio-diversity (Flora and Fauna) Special Policy Areas

The organic fertiliser produced on this farm is, and will continue to be, allocated to farming lands that have traditionally and/or are currently receiving animal manures (be they bovine, ovine, porcine and/or avian in origin) or chemical fertilisers to maintain soil fertility and ensure satisfactory grass/crop production. The organic fertiliser produced on this farm is, and will continue to be, used by the customer farmers to replace the imported inorganic chemical fertiliser that would otherwise have to be used, as part of a fertiliser substitution programme, in line with the nutrient application limits as prescribed by S.I. 588 of 2025 . ***There will be no increase in organic fertiliser production as a result of the proposed alteration in activities on the farm.***

All habitats within these lands such as wooded areas; scrubland etc. would be excluded from receiving organic fertiliser from this farm due to the requirements of S.I. 588 of 2025 . The planned pest control programme to Bord Bia Quality Assurance Scheme standard will be expanded to incorporate the proposed development.

The development is planned on/adjacent to an existing pig farm site and/or a greenfield area immediately adjacent to same and the proposed development will have no significant adverse impact on flora and/or fauna in the area. This existing site and adjoining area have been an agricultural farmyard for a long number of years and thus has a poor level of plant diversity and is of no significant ecological importance.

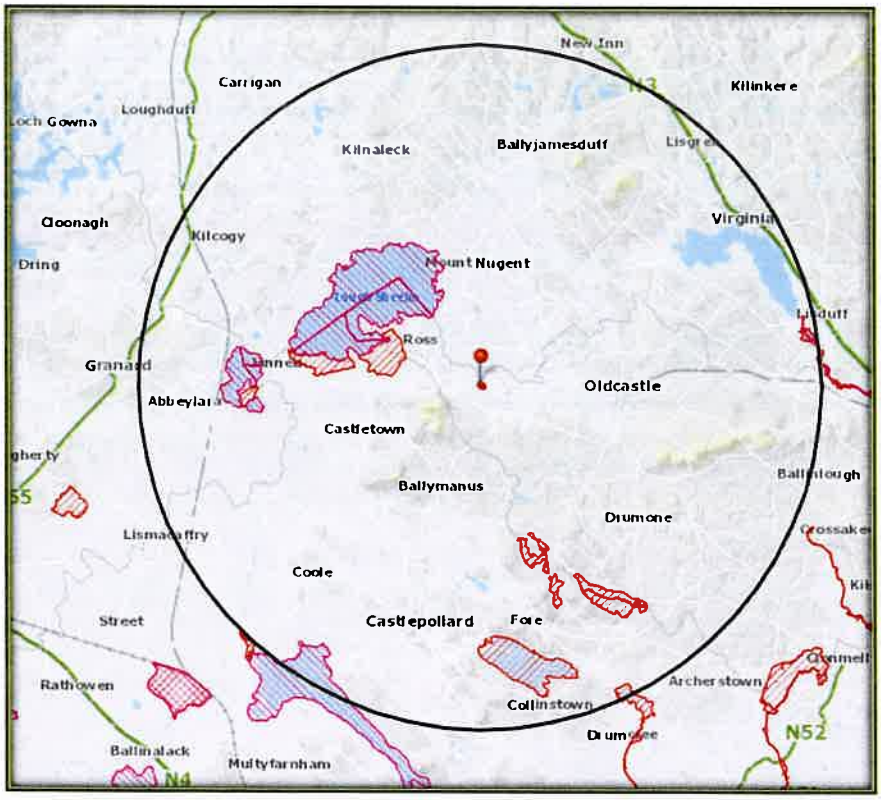
The application site is located within the Upper Shannon Hydrometric Area (26) and River Catchment (26F), and the Inny Sub-Catchment (010) and Sub-Basin (040). There is an open drain present at the north-western corner of the application site (approximately 58m west of proposed construction works). Clean surface water from the site is being directed to this drain. This drain connects via a small stream to the River Inny, which is 339m north of the application site. The River Inny flows in a north-westerly direction and it enters Lough Sheelin at a point 3.5km north-west of the application site.

The EPA have classed the ecological status of the Inny River and its tributaries at points close to the application site as moderate status. Lough Sheelin is also noted to be of moderate status. Under the requirements of the Water Framework Directive, this is unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027.

An ammonia impact assessment has been completed in line with E.P.A. Guidance, as part of this E.I.A.R. and this has confirmed that the development as proposed, will comply with the applicable thresholds / standards and recent E.P.A. Guidance (2024). The results of the ammonia assessment detail a 26% drop in ammonia emissions (without additional mitigation) and show that the closest Natura 2000 designated habitats, will not be significantly adversely impacted, and the proposed development complies with E.P.A. Guidance. Thus, any areas of ecological interest will not be significantly adversely affected by the ammonia emissions from the operation of the farm.

Activities at this site are not expected to have any adverse affect on the conservation of these areas and the wildlife contained therein for the following reasons,

- The proposed development is located a significant distance from the closest S.P.A./S.A.C., and the enclosed Ammonia Impact Assessment has confirmed that the proposed development will not significantly adversely impact on any such area.
- The existing farming activities have been carried out on these lands without any adverse impact on the designated areas, and the proposed investment will facilitate improved levels of management and expertise will be afforded to the operation of the proposed development. It is proposed to alter stock number on the farm and operate as a specialized breeding farm, however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.
- All organic fertiliser arising from this farm, which will not be increased as a result of this alteration to the farming system, is, and will continue to be, allocated to lands farmed by the customer farmers in accordance with S.I. 588 of 2025 , and will be utilised in a fertiliser substitution programme to replace primarily chemical fertiliser use, thus resulting in no increase in the amount of available nutrients (N and P) applied to the customer farmer's lands.



The Application Site (Red Dot) in relation to the Natura 2000 Sites within 15km. SACs – Red Hatching; SPAs – Pink Hatching

1.13 Cultural Heritage (Architectural and Archaeological Features)

There are no buildings/structures of architectural significance located on or adjacent to the proposed site or likely to be impacted by the proposed development. There is no evidence of any archaeological features at the site. There are no previously recorded archaeological features/monuments located within the subject development area and no physical features of archaeological potential were noted by a surface reconnaissance survey of the site. Likewise, there are no previously recorded artefacts known from the subject site.

The pig farm site is not located near, and/or likely to impact on any Special Heritage sites as identified in archaeological features as listed in the County Meath County Development Plan 2021- 2027, or any area as listed in the Archaeological Survey of Ireland. The proposed development is located in excess of 0.4 km from any features recorded on the Archaeological Survey of Ireland, and this is an existing developed and long established pig farm site.

As the proposed development is, an upgrade / alteration / specalisation of an existing pig farm site, and, as it is a significant distance away, it is not anticipated that this development will adversely impact on the archaeological features of the area. This proposed development will have no impact on archaeological features within the areas of the customer farmlands as strict buffer zones will be applied to any archaeological features such as ring forts that are identified.

1.14 Material Assets and Traffic

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 potential impact of the proposed development on *archaeology / cultural assets* has been discussed previously.

Material Assets that may potentially be affected by the proposed development include:

- (A) Material Assets: Agricultural Properties including all agricultural enterprises
- (B) Material Assets: Non-agricultural Properties including residential, commercial, recreational and non-agricultural land.
- (C) Material Assets: Natural or other resources including mineral resources, land and energy

The proposed development will be completed on the existing pig farm site, and will not adversely impact on agricultural and/or other properties outside of the site boundary. The development will involve the use of a limited amount of construction materials (including quarry products and other construction materials), however the extent of the development is limited in nature and the amount of resources required in the construction of the house, and potential adverse impact of same, is negligible when sourced from authorized sources.

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

Traffic to and from the site will increase due to the proposed development, as a result of the construction activities to be carried out on site (temporary). While there is an alteration in the animal numbers on the farm, there will be no significant additional increase in traffic with the potential for significant adverse impact. Any potential for an increase in, and/or adverse impact resulting from, traffic is to be minimised due to improved efficiencies in the operation and management of the farm, and optimisation of load sizes.

The volume of traffic to and from the site can be minimised by optimising load sizes. This pig farm has existed for c. 50 years and there has been no indication of an adverse impact, environmental or otherwise, due to the traffic flows. The operation of the existing farm has not experienced any complaints pertaining to the operation of activities on the farm.

Weekly Traffic associated with the farm will be due to;

	Existing 280 Sow (ex. served gilts) integrated	**Proposed 640 Sow (excl. Served Gilts)Breeding pig farm (Proposed Development)**
Feed Deliveries	2-4 per week	2-4 per week
Organic Fertiliser	c. 16 load/week in spreading season. (39 weeks and average 9.09m3 / load)	c. 16 load/week in spreading season. (39 weeks and average 9.09 m3/load) Same may be reduced to 8 loads/week @ 18.18m3/load.
Stock Transport	1-2 load / week to market 1 Load Sows fortnight	1-2 Loads out/week to off-site rearing 1 Load Sows fortnight

- and transport of materials and staff to and from the farm (Relatively Unchanged).

Transport of dead animals from the farm to a rendering plant will occur weekly. The remainder of the traffic will be associated with staff movement to and from the site. The site in question is approximately 4.05 ha and it is located in a rural area within the townland of Ballinrink. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

1.15 Interactions

All wastes generated on site, such as fallen stock, general packaging etc., will be stored and disposed of/recovered in accordance with applicable regulations and in accordance with Meath Council and E.P.A. requirements.

The potential of the proposed pig farm development for adverse impact on environmental parameters is negligible, due to the nature and management of the proposed development. All wastes will be removed from the site by authorised waste contractors for either disposal or use elsewhere, as per existing practices. All soiled water generated on-site will be collected in the manure storage tanks and treated as organic fertiliser. While waste generated on the site would be accumulated and stored temporarily on the site, there will be no disposal or recovery of any waste undertaken on the site.

Organic fertiliser is the main by-product produced on the site. This manure is a valuable organic fertiliser, and is keenly sought by tillage and grassland farmers. All manure from the proposed development will continue to be transported off site for use on the lands farmed by the customer farmers as an inexpensive organic fertiliser to replace purchased expensive inorganic/chemical fertiliser and/or organic fertiliser from other sources, in line with the requirements of S.I. 588 of 2025 , and as per the existing activity as previously approved/currently authorised. ***As previously detailed the proposed development and change to the operational practices on the farm will not alter the amount of organic fertiliser to be produced.***

As previously detailed ***the currently proposed development will provide for a sustainable alteration of activities, previously approved and/or currently authorised for this farm, with the proposed alterations to the development deemed necessary to comply with current and/or increasing environmental and welfare requirements at the proposed scale, and to allow for a specialisation as a pig breeding farm.***

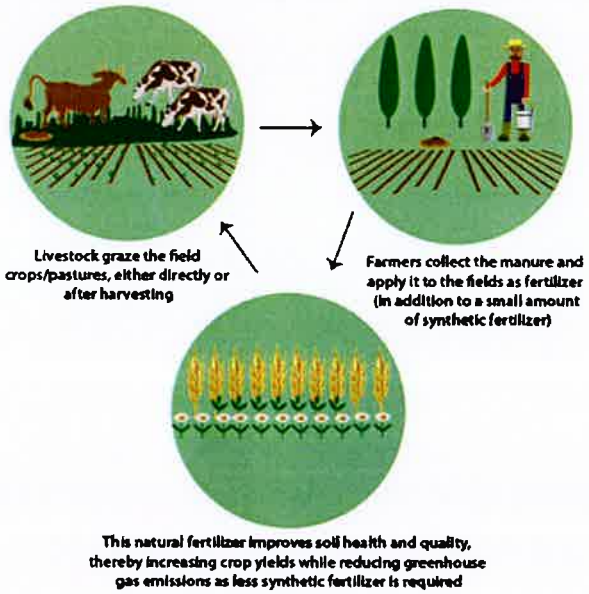
Teagasc have recently (2023) put a value of €11 per m3 on this fertiliser based on a comparison with chemical fertiliser prices. This naturally produced organic fertiliser provides significant benefits with regard to improvements in soil organic matter, trace element content, when compared to inorganic imported chemical fertilisers.

Integrated farming systems fight climate change and boost crop yields

Integrated cropping-livestock systems are another sustainable agricultural practice. These practices are based on a simple concept: that crop yields can be maximized by recycling nutrients present in both animal manure and crop residues. This reduces the need for chemical fertilisers that release large quantities of greenhouse gases and thereby contribute to climate change. In an integrated cropping-livestock system, livestock may either graze the field crops directly or may be fed the crop after harvesting. Farmers then collect the manure from the livestock and use it as fertiliser, thereby returning many of the nutrients to the soil. In this regard;

- Pig Manure is to continue to be used as part of a fertiliser substitution programme (to replace imported chemical fertiliser) on customer farmlands to meet crop /grassland agronomic requirements.

How an integrated cropping-livestock system works



1.16 Potential Effects (Cumulative, Long/Medium/Short term and/or Transboundary.

Within the County;

The existing / proposed pig houses are located in Co. Meath. County Meath does not have as intensive an agriculture sector as counties such as Cavan, Monaghan, Tipperary, Cork etc., and farming in the county in based more around the traditional enterprises such as tillage, dairy and beef, and additional activities.

There is currently only one EPA licensed pig farm in Co. Meath, with four licensed poultry farms (of which it is understood only 2 are currently operating above licensable threshold). While there are other smaller farms this is a low density of Intensive Agriculture relative to the tillage farming sector in the county which has significant capacity to utilise organic fertiliser from such developments. As has been detailed in this report the volume of organic fertiliser to be produced will not increase and customer farmers have the capacity to utilise all organic fertiliser to be produced on their lands to continue to replace, in part, their (organic/chemical) fertiliser purchases/imports, as part of the fertiliser substitution programme, in line with the fertiliser limits as prescribed by S.I. 588 of 2025 .

The existing tillage and arable sectors in Co. Meath rely on a consistent reliable supply of organic fertiliser, so as to minimise the need for, and costs associated with expensive imported chemical fertiliser The proposed development will result in an alteration in stock numbers on the farm, from c. 280 Sow (ex. served gilts) integrated, as it currently operates, to a 640 Sow (excl. Served Gilts) breeding pig farm. Pig farming activities have been carried on the site for the past fifty years with no significant negative impacts. As previously detailed the operation of this farm will progress towards a 640 Sow (excl. Served Gilts) specialised breeding pig farm, with no increase in organic fertiliser production.

The poor returns from the more traditional farming practices, over the last 5-10 years, and the reduction in local employment in other sectors of the economy have had a significant adverse impact on the rural Irish economy. Productive, efficient, sustainable and local agricultural activities, such as the proposed development, and the jobs dependant thereon, are critical to the local and wider Irish economy.

It is anticipated that the proposed development at this site will not lead to a negative cumulative impact on the local environment. While the proposed development will lead to a sustainable alteration/specialisation of activities on the farm, it will help ensure that existing and proposed activities on the farm are carried out in an environmentally sustainable and welfare friendly manner, and help to improve bio-security measures on the farm and animal health and welfare. The mitigation measures proposed, will ensure that there is no significant adverse environmental impact on the surrounding area, and will minimise potential emissions and improve animal welfare standards within the development as currently proposed. The proposed development will result in a significant investment in infrastructure on the farm with no intensification of activities (albeith that there will be a change in operational practices from an integrated pig farm to a specialised breeding farm).

The proposed development will consist of the buildings and ancillary facilities necessary to accommodate the proposed breeding herd along with all boars and replacement breeding stock (served gilts and maiden gilts) necessary for the operation of this breeding herd and all pigs produced on the farm until they are moved off-site at c. 35kg's. The pig farming activities currently carried out on-site were done so with no significant adverse impact on the local environment. The proposed development will provide additional benefits with regard to, the quality and quantity of manure storage capacity, bio-security, and animal health and welfare. It is anticipated that this development will not adversely impact on the local environment around the pig farm site, and will ensure that a high standard of environmental protection and animal welfare are employed on the farm.

Organic fertiliser/manure allocation from this farm to customer farms will not lead to a cumulative impact as this fertiliser will continue to be used as required by S.I. 588 of 2025 , and as part of a fertilsier substitution programme, to replace inorganic imported chemical fertiliser that would otherwise have to be used. Due to the mitigation measures planned to be implemented on the farm, there should be no adverse impact on the local area.

The existing/proposed activities will result in the continuity of supply of organic fertiliser, however, it is significantly below that required by the customer farmers to maintain optimum soil fertility and there will be no increase in organic fertiliser production as a result of this development. While the proposed development will result in a sustainable amendment to activities on the farm, it will have no significant adverse impact within the local area and/or county at large.

The applicant has planned the proposed development in such a way that;

- Facilitates the development to achieve maximum benefit from the experienced labour on the farm and the high genetic merit stock, and to improve environmental and animal welfare compliance.
- Demonstrates excess demand for organic fertiliser for use as part of a fertiliser substitution programme and in compliance with the fertiliser nutrient limits as prescribed by S.I. 588 of 2025 . No additional increase in organic fertiliser production.
- Satisfactory arrangements for storage, management and allocation of organic fertiliser are proposed, in line with the Department of Agriculture, Food and The Marine, and Meath Co. Co. requirements, and the proposed development represents a significant investment in new/replacement infrastructure on the farm, thus providing higher welfare and environmental standards.
- This development will occur on/adjacent to an existing farmyard complex / pig farm (replacing that development previously approved under planning Ref: 24/60324), well removed from existing settlements and development clusters, and on a site that has been previously approved/currently authorised by Meath Co. Co. for this type of activity. The currently proposed development will ensure higher standards of environmental and animal welfare compliance as a result of the improved infrastructure , while also permitting the required infrastructural and operational revisions to this long established farm activity.

Within the Local Area;

It has been detailed previously that the proposed development will not have any significant adverse cumulative impact within the county; however the potential cumulative impact on the immediate local area needs to be assessed separately. The proposed development will result in a consolidation in operating stock numbers on the site, from c. 280 Sow (ex. served gilts) integrated to a 640 Sow (excl. Served Gilts) breeding pig farm. Pig farming activities have been carried on the site for the past c. fifty years with no significant negative impacts and no complaints. The impact of the proposed development within the local area will be minimised by integrating it successfully within the local environment, proper management and storage of all wastes produced on the site and the utilisation of all organic fertiliser in accordance with S.I. 588 of 2025 .

A number of measures have been provided for in the design, layout and planned operation of the proposed development, so as to mitigate against any adverse impact in the local area or further afield, to meet current increasing environmental and animal welfare requirements. Any additional requirements placed on this development by Meath Co. Co. as a result of planning permission conditions will be integrated into the development and operation of this farm. This will ensure that this proposed development will have no adverse environmental impact on the immediate area and will not lead to a negative cumulative impact on the local environment.

Trans-boundary;

Given the location of the proposed development well removed from any other international boundary, and the inert nature of the construction and operation of the farm and any of the materials used and/or produced on-site together with the range of processes to be carried out there is no potential for adverse trans-boundary impact.

1.17 Mitigation Measures to avoid, prevent, reduce or if possible offset significant environmental effects.

Although no significant adverse environmental effects are anticipated a number of best practice measures will be implemented in the construction/operation of the farm to ensure that there is no adverse environmental impact. These include, but are not limited to;

- Storm water attenuation and drainage system, with weekly inspection.
- Collection and appropriate management of all soiled water and organic fertiliser.
- Management of all organic fertiliser in line with requirements of S.I. 588 of 2025 , and to continue to replace predominantly chemical fertiliser as part of a fertiliser substitution programme.
- Proper management and segregation of all wastes produced on site, with use of approved contractors and wastes sent for recycling, recovery where appropriate in preference to disposal.
- Proper management and oversight of the farm at all times.
- Significant investment in new infrastructure and facilities, with no net intensification of activities.

The existing activity has operated to date without any significant impact on the local area.

1.18 Difficulties encountered in compiling the required information

The processes and technology involved in the construction and operation of the proposed development are standard for agricultural, and in particular pig farm, developments and well understood. In addition the principles are already in practice on site with the existing development and the proposed upgrades will help to ensure compliance with environmental and animal welfare requirements, to ensure higher environmental and animal welfare compliance.

The technical information on which to base an assessment of impact on environmental parameters is readily available in the public domain. There were no particular difficulties encountered and there is no reason to consider that there is any serious risk of error attaching to plans and projections for the treatment of wastes to be generated in the proposed development/existing farm. The principles with regard to the feeding and management of the pigs, the operation of the feeding, water, ventilation and heating systems, the treatment, storage and management of wastes produced, and the storage, management, distribution and utilisation of the organic fertiliser produced on this farm is similar to existing pig farm operations. In this regard the proposed development has been proposed in line with modern requirements and updated animal welfare requirements to ensure the highest construction, environmental and welfare standards.

The technical information on which to base an assessment of impact on environmental parameters is readily available in the public domain and additional information can be extrapolated from the operation of the existing farming activities and similar developments elsewhere in the country.

The development as proposed will;

- Improve both the economic and environmental sustainability of the existing customer farmer and pig farming activities.
- Minimise transport costs and emissions by being able to return the organic fertiliser back to local customer farmers.
- The specialisation as a pig breeding farm will also help to maximise bio-security on the farm.
- Improve the environmental and animal welfare characteristics of the existing farming activities.

As a result the assessment of any potential impact from the proposed development is factual as well as projected. There were no particular difficulties encountered and there is no reason to consider that there is any serious risk of error attaching to plans and projections for the treatment of wastes to be generated in the proposed development.

1.19 Summary

The proposal as outlined will make a significant positive contribution to the rural economy of Co. Meath. It will serve to increase employment in the locality, and secure the jobs that are provided by this farm. It will also secure the viability of the applicant's farming activities and that of his feed suppliers, pork buyers and other such dependant businesses. Simultaneously, it will continue to integrate seamlessly with the existing farming activities carried out by the customer farmers to the mutual benefit of both, in an environmentally friendly and sustainable manner.

The new farm buildings/structures will integrate successfully with their surroundings and will not give rise to any significant environmental effects. The provision of improved manure storage facilities, with leak detection facilities should be seen as a positive development and an improvement in the attributes of the existing development.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

The granting of permission to the proposed development would strongly accord with the provisions of the County Development Plan and will provide a boost to the economy of Co. Meath. The proposed development will operate under the conditions imposed as part of any grant of planning permission for this farm and in line with Department of Agriculture, Food and The Marine requirements, specifically as detailed in S.I 588 of 2025 and S.I. 311 of 2010.

Signed:

Pádraic Fay
BAgrSc

15th January 2026
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Example Process Flow Diagram

Organic Fertiliser
c.5,790.72 m3

Customer Tillage / Grassland Farm

Pig Farm

Cereals (Future Potential)

Cereals

Feed
c. 75%

Pig Meat

Animal Feed Supplier

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IRISH MEATS

2. INTRODUCTION

2.1 National Policy

The agri-food sector has been credited with playing an integral role in the national economic recovery in recent years. The sector is the country's largest indigenous industry, with an estimated turnover of €26 billion, and exports of €13.7 billion (2018) and providing 173,000 jobs or 7.7% (2018) of the total employment. The sector makes a significant contribution to employment in rural areas, being a pivotal source of enterprise creation and opportunities. The sector has particularly appealing characteristics in that its supply chain is labour intensive in the local economy while its output is primarily for export. This means that it is rich in employment locally but can harness growth opportunities globally.

Reflective of the growing importance and economic potential of the sector, a strong policy emphasis has been placed on the sector in recent years through a number of national frameworks issued by the Department of Agriculture, Food and the Marine including Food Harvest 2020: A Vision for Irish agri-food and fisheries, Milestones for Success 2014, which charts the achievements of the former, and most recently Food Wise 2025: A 10-year Vision for the Irish agri-food industry. Food Wise 2025 set out a strategic plan for the coming decade, covering the period of the Plan, and focusses on opportunities to increase primary production, exports, add value to the products within the sector, and create 23,000 additional jobs throughout the sector. The sector is broadly described as encompassing everything from primary agriculture to food and beverage production, from fisheries and fish processing to forestry and forestry outputs. Food Wise 2025 built on a successful lineage of ten year strategies for the agri-food sector going back to Agri-Food 2010 which was published in 2000.

Food Vision 2030 – A World Leader in Sustainable Food Systems has been launched in late 2021. The ambitious and innovative roadmap for the agri-food sector aims to agri-food exports from €14bn to €21bn by 2030 – further enhancing Ireland's position as global leader in safe, sustainable agri-food exports. The vision of "Food Vision 2030" is that Ireland will become a world leader in sustainable food systems over the next decade delivering benefits for the sector, for Irish society and the environment. "Food Vision 2030" has been developed by a cross-sectoral committee of agri-food stakeholders and envisages a pathway to a position of world leadership based on progressing the three pillars of sustainability: economic, environmental and social. It sets out four high-level missions to fulfil this ambition:

1. Viable and Resilient Primary Producers with Enhanced Wellbeing
2. Food that is safe, nutritious and appealing: trusted and valued at home and abroad
3. A Climate Smart, Environmentally Sustainable Sector
4. An Innovative, Competitive and Resilient Sector, driven by Technology and Talent.

Of the unique nature of the sector, Food Wise comments: 'Its strategic importance to the Irish economy, its roots in local communities and its strengthening global reach (the industry provides quality, safe and nutritious food to consumers in at least 175 countries around the world) make it a sector unlike any other.

2.2 Pig Industry

➢ National Basis

The development of the pig meat industry is supported by government policy aimed at increasing the value of the export market. The Irish pig meat industry has achieved major success from the mid 1980's onwards in the development of an internationally competitive export orientated pig meat industry. This progress was achieved with major rationalisation of the Irish Pig Industry with a reduced number of farmers with a larger number of animals, resulting in the pig industry becoming the most market led industry in Irish Agriculture.

The Irish pigmeat industry accounted for c. 10% (excluding forage) of the output value of the agri-food sector in 2016 and is the third most important sector after dairy and beef. Retail sales of pork products in Ireland (2018) amounted to c.€650 million, and on top of this, exports amounted to some €666 million in 2018 (increasing to €941 million in 2019). Ireland represents less than 1% of EU (27) production (2016). This enterprise conforms to Irish national policy on the pig industry based on the Development Plan for the Irish Pig Industry announced by the Minister for Agriculture and Food on the 10th of July 1987, the Pig Production Group Report of 1988 and the Pig Industry in Ireland, Strategic Study, 2000. The pig industry in Ireland has been through a number of tough economic years. On an island basis it is essential that the present level of production is at least maintained, as a critical mass of circa. three million pigs per annum is essential for the efficiency of the few processing plants remaining. Ireland's island status has long-term importance for the European project in terms of disease transfer and sustainable pig breeding.

According to the Food Harvest 2020 report, and Food Wise 2025, pig meat consumption worldwide is expected to grow steadily between in the coming years. The Food Harvest report details that it is government policy to target a 50% increase in the value of pig meat production/exports. It is envisaged that a significant proportion of this expansion in the pig industry will occur on existing pig farm sites. This report also confirms that while the number of farmers producing pigs is expected to decrease over this period, the farm size is likely to increase.

On a national scale there in excess of c. 7,000 jobs directly dependant on the pig industry. This industry also provides a source of organic fertilisers for farmers in this area. Due to the ever increasing costs associated with chemical fertiliser, organic manures such as pig manure are becoming ever more sought after by tillage/livestock farmers in order to reduce their fertiliser costs. The goal of the development is to establish a modern purpose designed pig farming activity that will comply with all environmental and welfare standards while at the same time providing a reasonable return for the applicant, and optimising the applicant's existing farming activities. This proposed development will ensure that the pig farm operates in accordance with Bord Bia quality assurance standards and animal welfare regulations. It will also ensure appropriate manure storage capacity on the farm, and represents a significant capital investment.

Within the pig industry, the trend is towards larger scale pig farms reflecting, 1) The concentration of resources in terms of skilled labour and capital, 2) Domestic and more increasingly international welfare standards, and, 3) Economies of scale.

Due to rising input costs, additional environmental and welfare requirements and the reduction in pig prices (in real terms) Irish pig farmers need to improve efficiencies wherever possible. Irish producers are amongst the top producers in the E.U. in terms of pig numbers per sow, but carcass weight is still lower than most of our competitors. There is room to increase efficiencies in this area, through small improvements in genetics, quality and quantity of housing, and slaughter weights etc.

➢ ***Co. Meath***

Intensive livestock farming has not developed in County Meath, to the same extent as it has in neighbouring counties such as Cavan and Monaghan. However the agriculture and tillage sector in particular in Co. Meath has relied heavily on the supply of organic fertilisers such as pig and pig manure from Cavan and Monaghan over the years. Agriculture is the mainstay of the local economy, and the county has a well organised agri-business sector. Pig processing facilities, feed mills, haulage contractors and other service industries rely heavily on the pig industry.

The pig industry also provides a significantly valuable source of organic fertilisers for farmers and in particular the tillage farmers of Co. Meath. Due to the ever increasing costs associated with chemical fertiliser, organic manures such as pig manure are becoming ever more sought after by tillage/livestock farmers in order to reduce their fertiliser costs, and for this reason the existing and proposed developments integrate seamlessly with the farming activities carried out by the customer farmers, and provide cost savings to both enterprises. This is a significant development in terms of pig farm developments and the level of investment required. It will also be a significant boost to local employment in this area, and the local construction industries.

The operation of this farm will enhance the symbiotic relationship between the tillage farmers supplying grain to the Irish animal and pig feed industry, by continuing to reurn the pig manure/organic fertiliser to these lands for use as organic fertiliser, and also providing organic fertiliser to grassland farmers to off-set chemical fertiliser inputs, and this continued source of additional organic fertiliser will have a positive impact on the economics of their farming activities.

The goal of the development is to establish a modern purpose designed pig farm that will operate to the highest environmental and welfare standards while at the same time providing a reasonable return for the applicant. This proposed development will improve animal welfare on the farm, ensuring that the pig farm operates in accordance with Bord Bia quality assurance standards and animal welfare regulations. It will also improve the quality and quantity of manure storage capacity on the farm, improved bio-security and maximising performance and efficiency by facilitating the transition to a pig breeding farm

Within the pig industry, the trend is towards larger scale pig farms reflecting,

1) The concentration of resources in terms of skilled labour and capital,
2) Domestic and more increasingly international welfare standards, and,
3) Economies of scale.

Due to rising input costs, additional environmental and welfare requirements and the reduction in pig prices (in real terms) Irish pig farmers need to improve efficiencies wherever possible.

2.3 Context

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

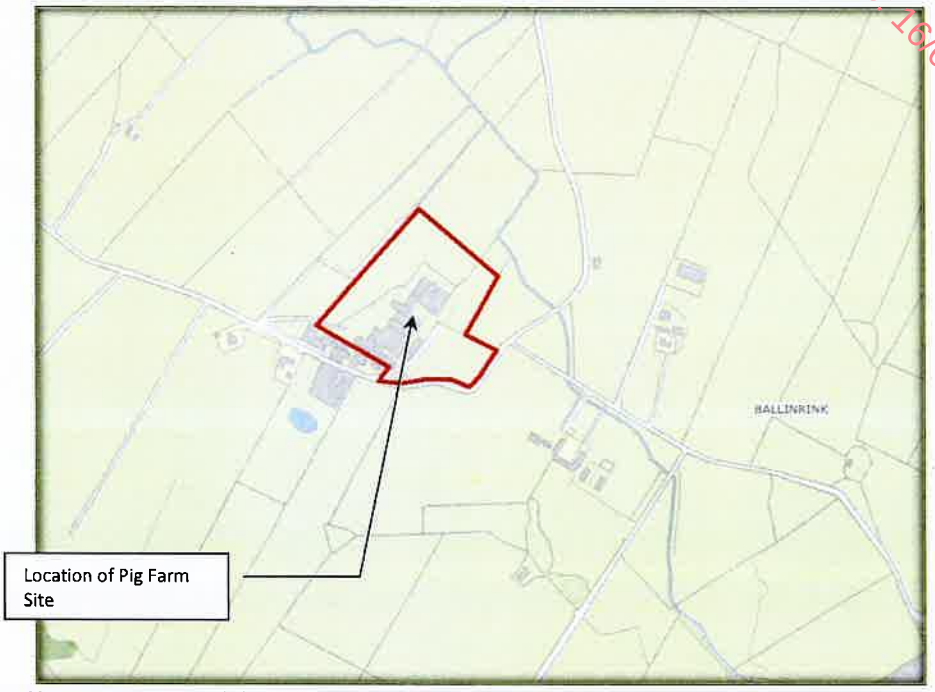
- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath .

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats © Google

Figure 2.1 & 2.2 Site Location



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The proposed developments will be located on the site of, and/or adjacent to the existing pig farm structures, and as highlighted on the accompanying drawings. These proposals are being sought to,

- Revise the existing development to improve the quality of animal housing and manure storage facilities on the farm, and ensure higher environmental and animal welfare standards, in line with increasing standards/requirements.
- Progress the farming system on this farm towards a 640 Sow breeding pig farm, so as to ensure that pig production at this farm is carried out in an economically/financially viable fashion and in an environmentally friendly manner well into the next decade, and maximises the return from the specialist labour available on the farm and the applicant's investment in high quality buildings.
- Ensure compliance with animal welfare recommendations with regard to stocking densities etc.
- Provide adequate space in order to rear pigs to target weights.
- Improve the health status of the pig herd by allowing time for a batch type production system (i.e. all in/all out) and weekly routine washing procedures in the farrowing/weaner accommodation and provide additional space to meet animal welfare requirements.
- Optimise manual labour requirement and make stockmanship the key to efficient welfare conscious production.

This Environmental Impact Assessment Report (E.I.A.R.) has been prepared in connection with European Communities Directive 85/337/EC, European Communities (E.I.A.) (Amendment) Regulations, the Local Government Planning and Development Act 2000, as amended, Planning and Development Regulations 2001, as amended, and the Protection of the Environment Bill 2003.

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.

2.4 Project Type as per EPA Guidelines (Note revised Advice Notes specific to E.I.A.R. not yet published)

The EPA have published Guidelines on the Information to be contained in an EIAR (May 2022) and Draft Advice Notes for Preparing an EIS. In these advice notes 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 Advice Notes outline the information to be contained within the Development Description and the description of the Environmental Effects. Appendix No. 5 includes the summary provided in these notes for *Project Type 13*. It outlines possible mitigation options for this type of development. The notes 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 advice notes 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. 5.

2.5 Farm Background

Farming activities have been carried out on this farm for c. 50 years. This proposed site is located adjacent to and integrated with the existing pig enterprise. Planning permission has previously been granted by Meath Co. Co. for developments on this farm (Planning Ref: 24/60324), and the developments currently proposed represent a further upgrading of the existing farm structures and a sustainable specialisation in the nature/capacity of the farm so that it can operate as a specialised pig breeding farm.

2.6 Integration of the Proposed development into the Existing Farm/Local Agri-Sector:

This proposed enterprise will have a number of advantages to ensure its economic viability. It will have cost savings due to;

- quality modern buildings resulting in, an improvement in herd performance and feed conversion efficiencies, i.e. less feed will be required to produce each pig, and improved energy efficiency.
- efficient use of labour, due to an optimum layout, and optimum technical efficiency.
- Specialisation of labour..
- Economies of scale with regard to input costs, etc.

In addition the operation of this farm will maintain the symbiotic relationship between the customer farmers, by returning pig manure/organic fertiliser to these lands for use as organic fertiliser.

The continued integration of this proposed development into the customer farmer's farming enterprise will be mutually beneficial to both activities as;

- The organic fertiliser to be produced on the farm (c. 5,790.72 m3) represents a fertiliser value of c. €60-65,000 available to the customer farmers, thus returning the nutrients to the lands used to grow the crops/grass.

Available Nutrient Content & Guide Value (€) of Organic Fertilisers 2023

Organic Fertiliser Type	N kg/m³ (units/1,000 gal)[6]	P kg/ m³ (units/1,000 gal)[5,6]	K kg/ m³ (units/1,000 gal)[6]	Value €/ m³ Or (€/ 1,000 gal)[3,4]
Liquid Manures				
Cattle (6% DM)	1.0 (9)	0.5 (5)	3.5 (32)	9.7 (44)
Pig (4% DM)[2]	2.1 (19)	0.8 (7)	2.2 (20)	11 (50)
Soiled Water	0.48 (4)	0.08 (0.7)	0.6 (5)	2.2 (10)
Solid Manures	N kg/t[1] (units/t)	P kg/t (units/t)	K kg/t (units/t)	Value €/ton
Dungstead Manure	1.4 (3)	0.9 (2)	4.2 (8)	13
Farmyard Manure	1.35 (3)	1.2 (2)	6.0 (12)	17
Poultry[3]				
Broiler / deep litter	14 (28)	6.0 (12)	18.0 (36)	81
Layers (30% DM)	6.85 (14)	2.9 (6)	6.0 (12)	35
Layers (55% DM)	11.5(23)	5.5 (11)	12.0 (24)	65
Turkeys	14 (28)	13.8 (28)	12.0 (24)	104
Spent Mushroom Compost	1.6 (3)	1.5 (3)	8.0 (16)	22

[1] The value of N in Cattle slurry is 9 units/1,000 gallon (Based on total N of 2.4kgN/m³ @ 40% N availability by LESS application). Conversion - kg by 2 = units
Spring application of organic manures is required to maximize N recovery. Manures should be tested to determine manure nutrient content.
[2] Incorporation of high N manures within 2 to 6hrs after application assume 50% N availability
[3] Value of N = €1.97/kg. P = €4.16/kg, K = €1.60/kg for 2023 (Nutrient values based on price / volume of range of fertiliser products).
[4] Cost of spreading & transport not included. [5] Reduce P availability to 50% on P Index 1 & 2 soils.
[6] Values under units/1,000gals or per ton have been rounded to closest unit. *Updated 1st April, 2023*

Fig 2.6 (i) – Value of pig manure based on Nov. 2023 fertiliser prices.

This continued supply of organic fertiliser will have a positive impact on the economics of the customer farmers grassland / tillage farming activities.

Bogue Pigs Unlimited Company will manage and operate the pig farm in a manner that is,

1. Compliant with E.U. and Irish animal welfare standards,
2. Beneficial to the local community in terms of direct employment (pig farm staff, advisors and consultants) and indirect employment (animal feed and processing industries, agricultural contractors, haulage contractors), (farmers also benefit from fertiliser nutrients), and,
3. Compliant with Meath Co. Co., D.A.F.M. and E.P.A. environmental standards and without adverse impact on the local environment.

The development of the new pig houses will be operated and managed in a similar way to existing pig houses within the county and/or further afield, and will provide much needed employment in the local area due to the additional staff required. The development of the proposed site will also provide additional, much needed work for the local construction and associated services industries, both in terms of labour and inputs required, and will secure the supply and quality of locally produced pork to the Irish consumer.

Example Process Flow Diagram

Organic Fertiliser
c.5,790.72 m3

Customer Tillage / Grassland Farm

Pig Farm

Cereals (Future Potential)

Cereals

Feed
c. 75%

Pig Meat

Animal Feed Supplier

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2.7 County Meath Development Plan, 2021-2027

The County Development Plan is the central document of the planning system and sets out the Local Authorities view of the future development of the county. The strategy of the county development plan is based around facilitating the economic development of the county while conserving the natural and built environment of the county and improvement of its physical infrastructure. County Meath is renowned for its rich pasturelands that has supported a wide variety of farming types. Agriculture has traditionally been the most important contributor to the rural economy of Co. Meath. While it is now providing less employment, it still remains important as a significant source of income and employment in rural areas. It is the objective of the planning authority to ensure that development in rural areas is located and designed so that it is not visually detrimental.

This proposed development is located in a rural agricultural area, where such developments are to be facilitated by the local authority, and it is not located near any scenic walks or viewing points. The location of the proposed site, integrated into the surrounding landscape, replacing a significant amount of the existing structures and integrated where possible with the remaining structures on the farm and the existing landscaping, will ensure that this proposed development is incorporated into the local environment, with no adverse visual impact.

Meath Co. Co. have detailed that the goal of the rural development strategy as outlined in the County Development Plan 2021-2027 is "To encourage the continued sustainable development of rural communities without compromising the physical, environmental, natural and heritage resources of the County.

The proposed development also satisfies Meath Co. Co.'s stated strategic objectives, as follows:

> ***RUR DEV SO 1 To support the continued vitality and viability of rural areas, environmentally, socially and commercially by promoting sustainable social and economic development.***
>
> ***RUR DEV SO 2 To identify and protect rural resources such as locally and regionally important aquifers and water sources from development which would prejudice their sustainable future usage.***
>
> ***RUR DEV SO 3 To identify and protect known or potential aggregate resources, where feasible, from development which would prejudice their sustainable future usage.***
>
> ***RUR DEV SO 4 To recognise the strategic roles the county will play in the regional and national context in terms of recreation, heritage conservation, natural resources and food production, and to ensure compatibility between this plan and regional and national strategies.***

RUR DEV SO 5 To support the vitality and future of Nodes for rural development and ensure a functional relationship between housing in Nodes and the rural area in which they are located.

RUR DEV SO 6 To protect and enhance the visual qualities of rural areas through sensitive design.

RUR DEV SO 7 To support the continuing viability of agriculture, horticulture and other rural based enterprises within rural areas and to promote investment in facilities supporting rural innovation and enterprise with special emphasis on the green economy, in the context of sustainable development and the management of environmental resources.

RUR DEV SO 8 To support and protect the existing economic base and seek to diversify the economy through both inward investment and the promotion of agriculture, forestry and tourism- related industries in rural areas.

RUR DEV SO 9 To ensure that plans and projects associated with rural development will be subject to an Appropriate Assessment Screening and those plans or projects which could, either individually or in-combination with other plans and projects, have a signficant effect on a Natura 2000 site (or sites) undergo a full Appropriate Assessment.

RUR DEV SO 10 To promote rural economic development by recognising the need to advance the long term sustainable social and environmental development of rural areas and encouraging economic diversification and facilitating growth of rural enterprises.

It is felt by the applicant that the proposed development, satisfies the requirements of Meath Co. Co. as per ***the policies on Agriculture*** as outlined in the County Development Plan 2021 - 2027, detailed below;

To sustain rural communities, farm diversification and new employment opportunities will be required. In recent years there has been significant growth in the demand for fresh local produce and the development of allotments. Further development in horticulture and in value added food and agricultural enterprises are sectors with opportunities for growth. Specialist beef production and Intensive dairying are the most common types of farming.

Meath is the country's second most important centre for the bloodstock industry, after County Kildare. The equine industry is important both economically and culturally. Fairyhouse Racecourse, Navan Racecourse and Tattersalls Bloodstock Auctioneers are highly prominent enterprises in the area. Race meetings are also held in Bellewstown and Laytown. Bloodstock and sport-horse enterprises generate employment directly and also through other associated enterprises and sectors such as tourism.

Agriculture will continue to be an important component of the economy. The agricultural sector must adapt to the challenges posed by modernisation, restructuring, market development and the increasing importance of environmental issues. An economically

efficient agricultural and food sector, together with forestry, sensitive exploitation of natural resources and diversification into alternative on-farm and off-farm activities, are essential components of the development of the rural economy.

Goal: To maintain a vibrant and healthy agricultural sector based on the principles of sustainable development whilst at the same time finding alternative employment in or close to rural areas to sustain rural communities.

It is the policy of Meath County Council:

RD POL 10 To encourage and facilitate agricultural diversification into agri-businesses such as organic foods, rural tourism and small to medium sized enterprises subject to the retention of the holding for primarily agricultural use and the proper planning and sustainable development of the area.

RD POL 11 To protect the economic and social benefits of local country markets devoted to the sale of local agricultural and craft produce and to support their role as visitor attractions.

RD POL 12 To facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution.

RD POL 13 To protect agricultural or agri-business uses from unplanned and/or incompatible urban development.

Agricultural Buildings

The provision of well located structures and facilities necessary for good and environmentally sound agricultural practice shall be supported by Meath County Council.

The suitability of a given proposal will be determined by the following factors:

- **The provision of buildings to a design, materials specification and appearance and at locations which are compatible with the protection of rural amenities. Particular attention should be paid to developments therefore in sensitive landscapes as identified in the Landscape Character Assessment**

- **The availability of an effective means of farm waste management to ensure nutrient balancing between application of farm wastes to land and its balanced uptake by agricultural use of land;**

- **Whilst Meath County Council recognises the primacy in land use terms of agriculture in rural areas, and that the presence of individual housing should not impinge unduly on legitimate and necessary rural activity, regard should also be had to the unnecessary location of major new farm complexes proximate to existing residential development.**

Specific policies in relation to intensive agricultural development, such as the proposed development,

The requirements of the preceding section will be applied to intensive agri-business proposals in the pig and pig sectors. Whilst Meath County Council recognises the role of this sector to contribute towards national economic targets and the economic well-being of the county in general, it is vital that the environmental qualities of the county are recognised in such proposals and protected accordingly. The scale and intensity of such activities within a limited area and the appropriateness of the activity in relation to the quantum of waste generated and its effect on the area are important considerations in assessing development proposals for intensive agriculture. This applies in particular where the management of nutrients located in areas identified as major aquifers and which are vulnerable to contamination of ground water.

These agricultural and rural development plan policies recognise the important and varied role of agriculture within the economy of Co. Meath. These policies serve to recognise and support development proposals that will enable farming to become more competitive, sustainable, environmentally and welfare friendly; adapt to new and changing markets; diversify into new agricultural opportunities; and broaden their operations to "add value" to their primary produce, while at the same time protecting the environmental and cultural heritage of the County.

The development as proposed, which provides for a continuing modernising of the existing structures on the farm and alteration of the farming practices (from an integrated farm to a breeding farm) in keeping wit the overall scope of activities established and previously approved for the farm, on an existing pig farm site;

1. in a rural agricultural area on an existing pig fam site
2. significantly removed from any population centres,
3. located away from any designated areas and/or tourist attractions.
4. well integrated into the local environment with sympathetic design and layout,
5. with proper measures in place for the storage and removal of wastes off site,
6. with no increase in organic fertiliser production and the continued utilisation of all organic fertiliser on lands farmed by the customer farmers,
7. improved environmental and animal welfare standards.

will help to ensure that the proposed development will be in accordance with the stated plans and objectives of Meath Co. Co. as outlined in the county development plan.

2.8 Organisations and Bodies Consulted

This Environmental Impact Assessment of the proposed development has been carried out on behalf of the applicant by CLW Environmental Planners. CLW have extensive experience in Environmental Assessment with a particular focus on the intensive agricultural sector and have been carrying out EIA for in excess of 20 years.

The scoping exercise and completion of this E.I.A.R. was carried out by;

- C.L.W. Environmental Planners Ltd. (Paraic Fay B.Agr.Sc. (Project Lead), Oliver Leddy B.Agr.Sc. & Seamus Clarke M.Agr.Sc. (Technical Input and Review)),
- Teagasc, and
- Bogue Pigs Unlimited Company (– Pig farm Management, Operation and logistics).

This Environmental Impact Assessment of the proposed development has been carried out on behalf of the Applicant by CLW Environmental Planners Ltd. Since the company was established in 1997, CLW have specialised and gained extensive experience in Environmental Assessment with a particular focus on the intensive agricultural sector. C.L.W. Environmental Planners Ltd. are heavily involved in the Planning and E.P.A. Licensing of pig and pig farms countrywide for the last 25 + years and have been deemed by the E.P.A. and numerous local authorities to be competent experts in the preparation of EIAR for Intensive Agricultural farms.

As with any E.I.A., there is significant cross-over in the relevant chapters of the EIA and the expertise of the relevant contributors will be utilised throughout the report, where relevant, and not always specifically confined to any section / sub-section. The team involved directly / indirectly in this EIA, and their main area contributed to, included:

EIA Team Members	Organisation
• **Paraic Fay** *BAgrSc*	c/o CLW Environmental Planners (EIA Coordinator, Assessment of existing environment, assessment of proposed emissions/impacts, odour and ammonia screening assessment, nutrient management planning and assessment of potential impact on the local environment)

Paraic initially joined C.L.W. Environmental Planers Ltd. in 1999 and over the intervening 25 years has specialsed in Planning, EIA and E.P.A. Licensing of intensive agricultural farms (pig and pig) nationwide.

• **Seamus Clarke** *MAgrSc*	CLW Environmental Planners (Pig farm operation, management, assessment of Existing and proposed farm operation input requirements and potential impacts)

Seamas has in excess of 40 years' experience in the intensive agricultural sector. He previously worked as a Pig Development Officer with Teagasc, Ballyhaise and earlier in education with Teagasc.

- **Hugh Larkin** *MAgrSc* — CLW Environmental Planners (Pig farm operation, management, assessment of Existing and proposed farm operation input requirements and potential impacts)

Hugh joined C.L.W. Environmental Planners Ltd. in 2020, with a focus on E.P.A. Licence compliance. This knowledge is of particular relevant in identifying, assessing and mitigation potential emissions/impacts from the farm development and identifying appropriate management strategies to prevent same.

The team involved directly / indirectly in this EIA included:

EIA Team Members	Organisation	Area /Topic
Paraic Fay *BAgrSc*	c/o CLW Environmental Planners (EIA Coordinator)	EIA Preparation
Oliver Leddy *BAgrSc*	CLW Environmental Planners	EIA Preparation
Seamas Clarke *MAgrSc*	CLW Environmental Planners	EIA Preparation
Hugh Larkin *MAgrSc*	CLW Environmental Planners	EIA Preparation
Bogue Pigs Unlimited Company	Applicant	
Myles O'Reilly *Dip Building & Services Engineering*	M. O'Reilly Civil Engineering	Surveying, Preparation of Drawings
Noreen McLoughlin *MSc MCIEEM*	Whitehill Environmental	Ecologist
J Brady	Rosderra Irish Meats	Industry Insight
Daniel Nolan	Hydrocare Environmental Ltd.	
Adrian Bacaoanu	Hydrocare Environmental Ltd.	

Other organisations and bodies consulted directly/indirectly include:

- Bord Bia
- Department of Agriculture,
- Department of Environment.
- Duchas - The Heritage Service
- Environmental Protection Agency.
- Meath Co. Co.
- Geological Survey of Ireland
- Irish Farmers Association (I.F.A.)
- Met Eireann
- Meath Co. Co. — Planning / Infrastructure
- Hydrocare Environmental Ltd. — Storm Water Attenuation, Flood Risk Assessment, Hydrogeology, Site Suitability Assessment

Adrian Bacaoanu M.Sc. Sustainabl;e Energy Engineering, BSC. Applied Physics

Danial Nolan BA BAI,MSc Environmental Engineeting, FETAC Site Assessor, MIEI

2.9 References / Publications Consulted

The following references, among others were consulted when compiling this Environmental Impact Assessment Report:

- Advice Notes for preparing Environmental Impact Assessment Reports, Draft September 2015 – E.P.A.
- Advice Notes on Current Practice in the preparation of Environmental Impact Assessment Reports
- Agri-Environmental Specifications for R.E.P.S. 2000, *Department of Agriculture, Food and Rural Development.*
- Code of Good Agricultural Practice to Protect Waters from Pollution by Nitrates, *Dept. of Agriculture Food and Forestry (D.A.F.F.) and Dept. of Environment (D.o.E.)*
- 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 pig or pigs.
- European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2025 (SI No. 588 of 2025 ,).
- European Communities (Welfare of Farmed Animals) Regulations 2010 (SI No. 311 of 2010).
- Explanatory Bulletin to the Soil Map of Ireland, *Teagasc 1980.*
- Food Harvest 2020 – Department of Agriculture, Fisheries and Food.
- Food Vision 2030 – Department of Agriculture, Food and the Marine.
- Food Wise 2025 – A 10 year vision for the Irish Agri-Food Industry– Department of Agriculture, Food and the Marine.
- Guidelines on the information to be contained in Environmental Impact Assessment Reports.
- Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques for Intensive Rearing of Pig and Pigs. – July 2003
- Meath Development Plan 2021-2027.
- Pigmeat Quality Assurance Scheme, Revision 4.1, (Sept. 2021) Bord Bia
- Protecting our Freshwaters, Nutrient Management Planning Guidelines for Local Authorities, *Dept. of Environment and Local Government.*
- Protection of the Environment Bill 2003.
- Revised guidelines on the information to be contained in Environmental Impact Assessment Reports, Draft September 2015, E.P.A.
- Suitable Development, A Strategy for Ireland, *Department of Environment*
- *Teagasc, Major and Macro Nutrient Advice for Productive Agricultural Crops - 4th Edition 2016.*
- The Economic Importance of the Pig (Meat and Egg) Sector in Ireland, Prof. Thia Hennessy, Cork University Business School, University College Cork, Ireland
- www.agriculture.gov.ie
- www.archaeology.ie
- www.bordbia.ie
- www.epa.ie/
- www.gsi.ie
- www.Meathcoco.ie

2.10 Environmental Impact Assessment Regulations

The *European Communities (Environmental Impact Assessment) Regulations, (as amended)* (and Directive 2014/52/EU) has laid down a standard list of areas of the environment that must initially be addressed in any E.I.A.R. These areas compose of:

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

It is necessary to encompass each of these sections of the environment with respect to the impacts that the proposed development will have on them. The purpose of this exercise is to shape and mould the 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.

Potential Impacts During Construction and Operation

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

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

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

Potential Impacts when proposed development (upgrading of existing structures and re-alignment of farming practices) is assessed against the current operating development.

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

* More efficient production system due to improvements in housing infrastructure and operational practice resulting in reduced emissions per unit of production, overall increase in emission due to increase in stock numbers. Potential impacts mitigated by improvements in existing activities and integration of appropriate mitigation measures.

Note: Improved animal welfare standards which is the second core objective of the proposed development has not been detailed as an environmental impact.

Key:

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

3. DESCRIPTION OF DEVELOPMENT

This proposed farm development(s) will ensure that a higher standard of animal welfare and environmental protection are achieved by this farm enterprise. The proposed development of pig accommodation will be built to exacting Department of Agriculture, Food and The Marine specifications, and will further improve standards on this farm. The farm is situated in a rural location where agriculture is the main industry. The site is not visible from any major road or housing complex. The proposed pig farm structures will be well integrated into the site.

3.1 Site Location

The pig farm site extends to c. 4.05 HA. located in the townland of Ballinrink, Oldcastle, Navan, Co. Meath. This farm currently houses c. 280 Sow (ex. served gilts) (and associated breeding stock i.e. gilts and boars) and all of the pigs born on the farm until they reach market weight. The existing farm as per the site map below consists of a number of pig houses and ancillary structures for the housing of the stock.

Significant attention is to be paid to the management and care of the pigs to ensure high welfare standards, high quality genetics to ensure maximum fertility in the sow herd and maximum vitality in the pigs born and high performance and low mortality thereafter.

The proposed development will involve the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,

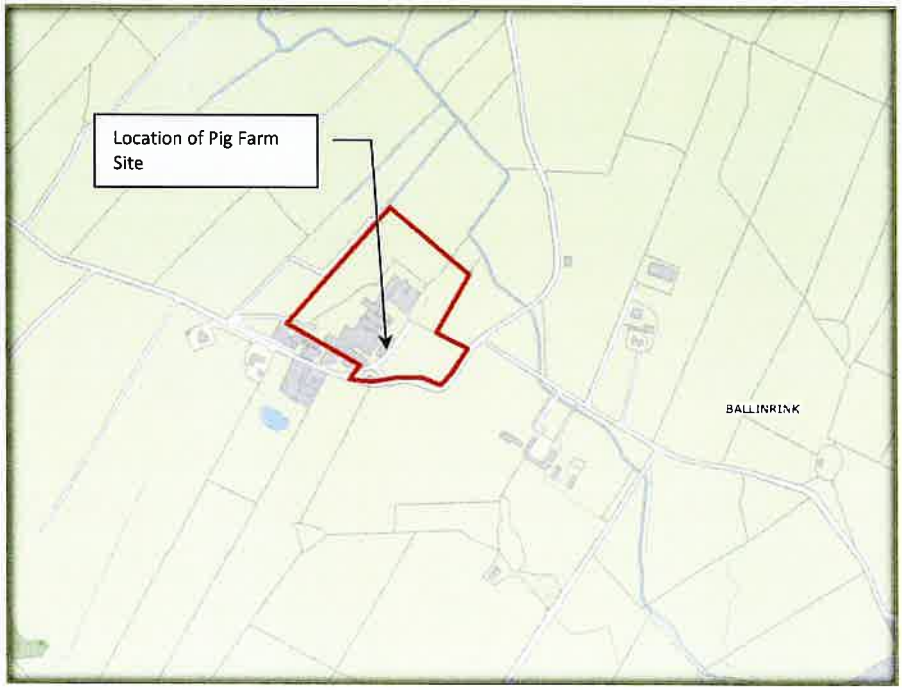
together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath,

is to be completed in conjunction with a modernisation of the site infrastructure and a re-alignment of the operation of the existing farming practices, and will facilitate a alteration in stock numbers whereby the herd size will change to a 640 Sow (excl. Served Gilts) breeding pig farm, with all pigs produced reared to c 35kg's.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc.

Figure 3.1 a Existing Site Layout and location

Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats © Google



Reproduced by CLW Environmental Planners Ltd under O.S. Licence No. CYAL50252386

Fig. 3.1b(i) Layout of previously approved pig farm development.
(Note: Developments previously approved under planning Ref: KA200428 not yet completed.)

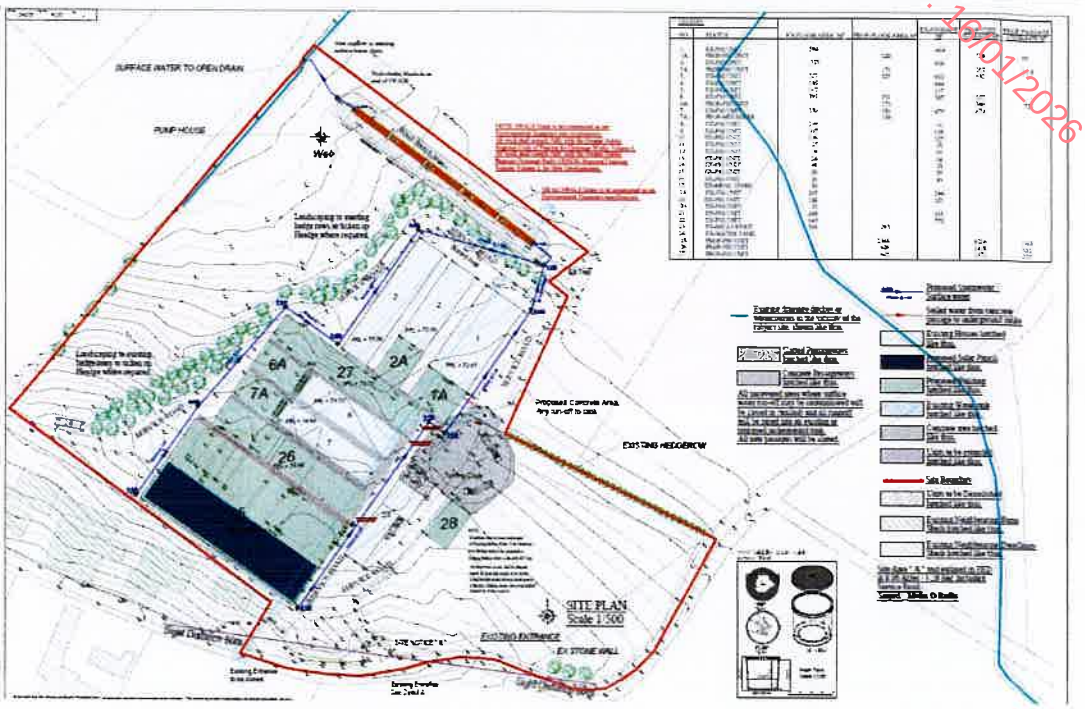
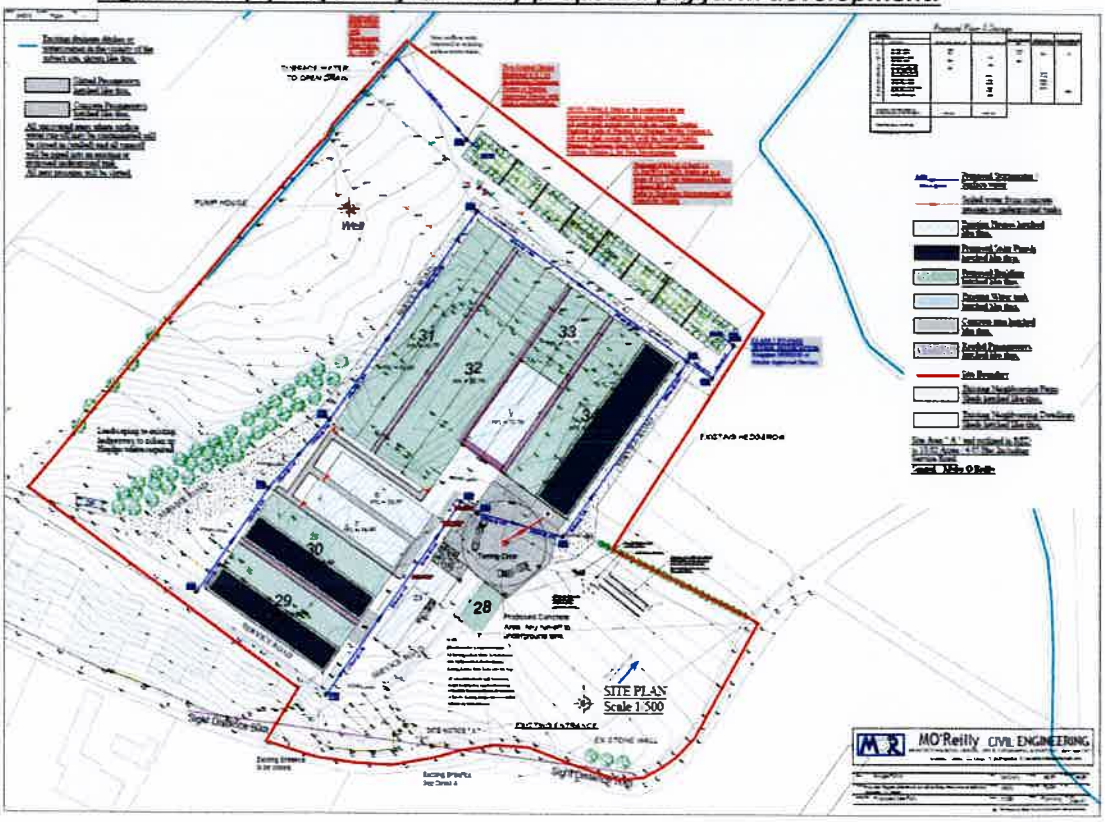


Figure 3.1 b(ii) Layout of currently proposed pig farm development.



3.2 Objective of this development

The objective of this planning application is to ensure that this farm can operate productively and economically into the future and in line with Meath Co. Co. and Department of Agriculture, Food and The Marine requirements, and, environmental and animal welfare regulations, and to make alterations to the operation of the farm to improve the environmental and animal welfare characteristics of the farm.

This farm as it exists is designed to operate as a c. 280 Sow (ex. served gilts) integrated pig farm to maximise the value of the capital and labour employed on the site. Notwithstanding that planning permission (24/60324) has been approved to modernise the farm, the applicant has reviewed the planned operation of the farm and now proposes to operate same as a specialised breeding farm, thus necessitating alterations to the previously approved development. The progression of the site to a 640 Sow (excl. Served Gilts) breeding pig farm makes 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, and achieves the highest levels of bio-security, animal health and performance.

The objective of this development is two fold.

- ***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, labour etc. laid on. Although this farm has received investment and is operating to a high standard, the currently proposed development and alterations to the production system will allow the applicant to further improve activities and efficiencies on the farm, optimise the use of the resources available to the applicant, improve the existing activities on the farm, and will be completed in lieu of previously approved developments.

- ***And secondly,***

the proposed development is to allow for the development of this farm, with a sustainable alteration of activities, with satisfactory accommodation for the enlarged sow herd size rearing pigs to c. 35kg's, and to make provision for the required washing routines and all in/all out production system. The applicant is seeking to develop a farm that is of a sufficient scale to operate as a viable and sustainable farm, while at the same time permitting a consolidation of farming activities, and improvement in bio-security, animal health and welfare, and environmental standards in line with increasing requirements.

It is intended to progress the farm towards a c. 640 sow breeding pig farm. At a time in the Irish pig industry when margins are extremely tight it is essential that every pig farm is run and managed as efficiently as possible. This is achieved with the efficient use of inputs and optimising animal performance.

In the assessment of any impact from this proposed development it is essential to remember that revisions (incl. those as previously approved but not yet constructed) to the previously approved farm are sought to improve environmental and welfare standards, however the current proposal will also facilitate the proposed alteration/re-alignment of the farming system in an animal welfare and environmentally compliant manner.

In addition it is anticipated that the overall development will improve the efficiency and thus the economic viability of this farm by,

- Consolidating animal numbers on the farm by altering the nature of the farm towards a specialised c. 640 Sow (excl. Served Gilts) breeding pig farm.

- Implementing (and/or continuing to implement as may be applicable) a significant array of measures such as c. 30 months storage capacity; underground leak detection facilities; surface water, ground water and leak detection monitoring etc. to help mitigate against any potential and/or perceived potential adverse impact from the proposed development,

- Providing an improved standard of housing thus improving the performance. This increased performance will be as a result of improved health and housing conditions, improved genetics, and will help increase the feed efficiency of the pigs, thus less feed and other resourses will be consumed and less slurry produced/unit of pig meat.

- Providing welfare compliant accommodation in line with the requirements of S.I. 311 of 2010 (Please refer to Appendix No. 16), and additional updated/expected requirements pertaining to farrowing sow accommodation.

- Improvement in the quality and quantity of manure storage structures.

- Completion of an enlarged storm water attenuation system in line with that as previously approved by Meath Co. Co.

- Improvement in the energy efficiency of the farm due to improved housing and operating systems and a reduction in Carbon Footprint by the planned provision of solar panels (considered exempted development) to help meet part of the farms energy requirement.

While the existing farm had been operating without any significant adverse impact on the surrounding environment, and without any complaint from local residents and/or the local authority, the proposed developments will significantly improve the standards in this proposed development and its interaction with the local environment.

The proposed buildings submitted for planning permission are slatted floor pig houses with mass concrete storage tanks underneath (essentially identical in design to the previously approved development). These tanks will be constructed in line with the Department of Agriculture, Food and the Marine standards for such structures, and will have a leak detection system underneath. This development will improve the quality of the building stock on the farm and increase the capacity of slurry storage facilities, notwithstanding that there will be no increase in organic fertiliser production.

The proposed development will be located on and/or adjacent to the existing pig farm structures, as highlighted on the accompanying drawings, and in keeping with the principle of the previously approved/currently authorised development (which is to be replaced by the currently proposed development). These proposals are being sought to,

- Improve the environmental and animal welfare characteristics of the existing development.
- Modernise and consolidate this farm, so as to ensure that pig production at this farm is carried out in an economically/financially viable fashion and in an environmentally friendly manner well into the next decade.
- Ensure compliance with animal welfare recommendations and stocking densities.
- Provide adequate space in order to achieve optimal animal performance.
- Ensure the highest health status of the pig herd by allowing time for a batch type production system (i.e. all in/all out) and weekly routine washing procedures in the farrowing/weaner accommodation. The improved infrastructure, will also maximise the health status of the farm and help to improve bio-security measures.
- Optimise manual labour requirement and make stockmanship the key to efficient welfare conscious production.

3.3 Size and Scale of the Development

The following details should be read in conjunction with the engineers's drawings provided in Appendix 2, 3 & 4. Appendix 2 contains a site location map(s) (1:2,500 + 1:10,560). Appendix 3 contains a site layout plan. Appendix 4 contains the cross-sections, plans and elevations of the structures for which planning permission is sought. The proposed development is situated on the site of, and/or adjacent to, the existing pig farm structures. The pig farm is currently operating as a c. 280 Sow (ex. served gilts) integrated pig farm.

Pig rearing design principles are relatively simple and have not changed significantly over recent years. The type of pig housing proposed on this farm is designed for pig rearing and comprises a simple closed building of block / concrete and steel construction on an impervious mass concrete manure storage tank, thermally insulated with a forced computer controlled ventilation system and artificial lighting.

This current planning application seeks to provide for the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath.

to be completed by the applicant is to be completed in conjunction with a refurbishment/upgrading and alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath . (National Grid Reference: ITM E649112 N780362).

- ***And,*** **to provide all of the necessary ancillary structures and services, thus further improving the efficiencies in the farming system.**

The proposed development will permit a sustainable development of farming activities towards a 640 Sow (excl. Served Gilts) breeding pig farm which will be completed in a welfare compliant and environmentally friendly manner. Ancillary structures on-site may/will include but are not limited to; feed silos, over ground storage tanks, diesel storage tank(s), water storage tanks, etc. Upon completion of the proposed development, pig production at any one time will comprise of c. 640 Sow (excl. Served Gilts)(i.e. a female pig after its first farrowing) breeding pig farm, replacement breeding stock (gilts (maiden and served), boars) and all pigs produced up to c. 35 Kg's.

Table 3.1 Stock Numbers (Existing / Proposed)

Animal Class	Existing Farm	Proposed after completion of proposed developments.
Farrowing	72	190
Dry Sow	208	450
Served Gilts	46	100
Weaners	1305	3,100
Maiden Gilts /Boars	39	110
Growers/Finishers (>30kg's)	1640	500

Note:
An integrated farm is a farm where pigs are born and reared to market weight.
A breeding pig farm is a farm whereby pigs are born and rear typically to 30 – 35 kg's liveweight.

3.4 Operation of the Farm

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 and/or owner, Mr. Luke Bogue / Bogue Pigs Unlimited Company will be available at all times should any emergency arise regarding this farm. In addition they will retain overall responsibility for the day to day running of the farm.

3.4.1 Stocking and Production Cycle

This proposed 640 Sow (excl. Served Gilts) breeding pig farm , will rear all pigs produced on the farm to c. 35kg, and/or until they are selected as replacement breeding stock, as opposed to the current practices of rearing to market weight.

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 pig 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 carefully washed and rested between batches.

The applicant is committed to providing a system that ensures adequate time for cleaning and resting the rooms between batches. One of the objectives of the proposed development is to allow improvements to this hygiene and washing routine. Adequate accommodation will mean that there is more time allowed between emptying the farrowing / weaner accommodation and re-filling with the next batch of pigs. This will allow more comprehensive washing, soaking, cleaning and drying out. The proposed development 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.

3.4.2 Use of Natural Resources

There are no significant negative effects expected as a result of the proposed development in relation to the use of natural resources. As previously detailed the development will require a limited land area to facilitate the proposed development, however same will have no adverse impact on land, soil and/or bio-diversity outside of the site area. There are no processes involved that have a high requirement for fuel energy.

The proposed development will have a definite requirement for a supply of water during the construction phase and once completed there will be additional water used on the farm as a result of this proposed development. The main resource to be consumed would be pig feed, which is classifiable as a natural resource that is a renewable resource, and water.

➢ **Feeding**

Pigs will be fed with a computerised wet feeding system and/or a probe feeding system. Feed will be supplied to the farm from a specialist feed supplier (such as Kiernan Milling, Paul & Vinvent etc., please refer to Appendix. No. 8), and mixed with water/whey/feed by-products etc. in the computerised wet feeding tank. From here it is pumped to each of the houses. Weaner pigs will be fed on a wet or dry feeding system.

Ad libitum water is, and will be, 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.

- c. 3.5 tonnes per sow/served gilt, where pigs are reared to c. 35kg's,

➢ **Water supply and use.**

Water is to be supplied from the existing well. 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 m3. 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)***

The farrowing and weaner houses are proposed to be washed after each batch, as the pigs are moved in an "all in / all out" system through their growth cycle. The pressure of the power washer is c. 3,000 psi. Water throughput per hour = c. 1.08 m^3. The power washer will be in use for 16-24 hours per week. A weekly total of c.20 -25 m^3 of water will be required.

➢ **Heating and Ventilation**

Energy supply to the farm will be an electric single / three phase supply @ 220 and 380 volts. A standby generator is provided in the event of a disruption to the power supply. The proposed development will also facilitate the erection of solar panels to help meet part of the farms electricity requirement.

(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/will be supplied by under floor heating with electric heat pads. Weaker pigs may receive extra and beneficial heat from an infrared lamp, hung over them.
- ***Weaner House:*** - These rooms are to be artificially heated with electric heat pads. The floors are to be slatted. The air temperature and freshness is to be climatically controlled by sensors and computers.
- ***Finisher Houses:*** - As a result of the proposed development there will be no finisher accommodation on this farm.
- ***Gilt/Sow Houses:*** - These houses will receive no artificial heating. All new houses are to be totally slatted.

(b) Ventilation

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

3.4.3 Housing

The proposed houses are of Λ-roof design with a maximum height of c. 5-6 meters above floor/slat level. Plans of the proposed building are contained in Appendix No.'s 3 & 4 of this E.I.A.R. The pigs are to be housed in the existing and/or proposed purposely designed and constructed pig houses as detailed on the site plan.

Sow/ Gilt Houses:

Loose Sow Housing: Planning permission has previously been approved for a number of developments on this farm to modernise and update the farm, and the current proposal represents a continuation of this substantial investment in the farm, concurrent with a sustainable alteration/specialisation of farming activities.

Farrowing Housing: The proposed development will result in the construction of purposely designed farrowing accommodation, which will be completed so as to ensure that the proposed enlarged sow herd can be accommodated in housing that satisfies increasing welfare requirements and in particular new requirements pertaining to loose farrowing accommodation.

Gilt Housing: The gilts will be selected from the weaner houses at c. 35 kg and moved to the gilt pens, until they reach c. 140 kg. They are vaccinated against all major-breeding diseases. At 140 kg they are moved to the service area and enter the breeding herd on service. Alternatively they may be transferred to the farm at 100-140 kg, prior to service.

Weaner Houses :

Once the proposed development has been completed there will be an average of 640 Sows, (weaning c. 425-450 pigs/week), replacement breeding stock and progeny on the farm. Progeny are reared up to c. 35 kg's, in the weaner accommodation.

Pigs are then moved off-site to the grower/finisher accommodation and remain until they reach market weight.

Additional space has been 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 applicant's veterinarian to maintain high health status in the herd.

Finishing Houses:

- ***Proposed Development:*** Once the proposed works facilitating a c. 640 Sow (excl. Served Gilts) breeding pig farm has been completed there will be no accommodation to rear finisher pigs on the farm.

All ***ventilation*** on this farm will be Computer controlled mechanical ventilation.

3.5 Manure Storage Structures and capacities & Fertiliser Substitution Programme

All pigs are/will be housed in slatted houses with under house manure storage tanks. Currently the slurry is collected / proposed to be collected directly through these slatted floors and stored in tanks located below slat level. The manure storage facilities associated with the proposed developments are to be 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.

Slurry Cooling and/or frequent removal is to be utilised where appropriate in the proposed development to comply with BREF 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 pig or pigs. Notwithstanding that the BREF is tailored to larger, IE Licensable pig farms, in the interest of environmental protection and minimising potential impacts from this proposed farm, it has been deemed prudent, where appropriate to implement these measures on this farm.

Appendix No. 3 contains a site layout, and Appendix No. 7 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. 588 of 2025 , (See Appendix No. 17)

The manure storage capacity on the farm will provide c. 30 months storage capacity at the proposed herd size. This storage capacity will ensure that organic fertiliser produced on the farm is spread only under favourable soil and climatic conditions, and is well in excess of the 6 months storage as required by S.I. 588 of 2025 . Notwithstanding that there will be no increase in organic fertiliser production, this storage capacity will facilitate the continued integration of the proposed development (or more specifically the organic fertiliser to be produced therein) into the customer farmers existing farming activities, by ensuring that the organic fertiliser is stored in accordance with DAFM requirements (and S.I. 588 of 2025 stipulations) in purposely designed manure storage structures, until such time as the weather and ground conditions are appropriate, and at the opportune time for the customer farmers to utilise the nutrients contained therein, to best effect for their tillage farming activities.

- ***Fertiliser Substitution Programme:***

The pig manure from this farm will continue to be utilised by customer farmers on their lands to continue to replace alternative predominantly chemical, fertiliser sources in line with the fertiliser allowances as prescribed by S.I. 588 of 2025 . The estimated manure production as a result of the proposed development will be c. 5,790.72 m3/annum. In line with the fertiliser plan previously submitted to Meath Co. Co. as part of planning Ref 24/60324, in respect of a customer farm operated by the applicant this fam can supply;

- <c. 45% of the existing Phosphorus requirements
- < 50% of the permitted Organic N allocations and
- Significantly less of total N fertiliser requirements on the customer farms.

Soiled water from the proposed development where applicable will arise from washing of the house and will be collected in the slurry storage tank. Same has already been accounted for in the organic fertilsier production calculations.

The lands farmed by a director of the applicant company is c. 290 hectares (Please refer to Section 4.4) available for the application of organic fertiliser, and same is sufficient to demonstrate capacity to utilise all of the organic fetiliser produced on this farm. Notwithstanding same other existing customer farmers and/or other farmers who may seek a supply can be supplied with organic fertiliser in line with the terms, conditions and requirements of S.I. 588 of 2025 .

If all organic fertilsier were to be allocated to the applicant's farm, the proposed development would result in an application rate of c. 75 kg Organic N/Ha well below the 170 kg organic N/Ha Limit, and well within permitted levels.

The customer farmers have traditionally satisfied all or part of their farm fertiliser P requirements from the existing organic fertiliser from this farm. The currently proposed development will not change this practice. The proposed development will ensure that the customer farmers continue to utilise the organic fertiliser to ***replace the equivalent of c.;***

- 45 tonnes of CAN Fertilsier with a total available N content of c. 20,250 kg.
- 46 tonnes of 0:10:20 Fertilsier with a total available P content of c. 4,600 kg.
- (Or the equivalent of c. 77 tons of a compound product such as 18:6:12)

The fertiliser substitution programme will continue to convey additional benefits to soil health not available form the chemical fertiliser alternatives, including returning additional organic matter and trace elements to the soil to improve overall soil health, with a positive impact on crop health, performance and nutrient uptake. ***These lands are already receiving fertiliser and the proposed development is in effect seeking to replace the fertiliser source (i.e. replacing imported fertiliser with organic fertiliser) with no increase in nutrients applied.***

Available Nutrient Content & Guide Value (€) of Organic Fertilisers 2023

Organic Fertiliser Type	N kg/m³ (units/1,000 gal)[6]	P kg/ m³ (units/1,000 gal)[5,6]	K kg/ m³ (units/1,000 gal)[6]	Value €/ m³ Or (€/ 1,000 gal)[3,4]
Liquid Manures				
Cattle (6% DM)	1.0 (9)	0.5 (5)	3.5 (32)	9.7 (44)
Pig (4% DM)[2]	2.1 (19)	0.8 (7)	2.2 (20)	11 (50)
Soiled Water	0.48 (4)	0.08 (0.7)	0.6 (5)	2.2 (10)
Solid Manures	N kg/t[1] (units/t)	P kg/t (units/t)	K kg/t (units/t)	Value €/ton
Dungstead Manure	1.4 (3)	0.9 (2)	4.2 (8)	13
Farmyard Manure	1.35 (3)	1.2 (2)	6.0 (12)	17
Poultry[3]				
Broiler / deep litter	14 (28)	6.0 (12)	18.0 (36)	81
Layers (30% DM)	6.85 (14)	2.9 (6)	6.0 (12)	35
Layers (55% DM)	11.5(23)	5.5 (11)	12.0 (24)	65
Turkeys	14 (28)	13.8 (28)	12.0 (24)	104
Spent Mushroom Compost	1.6 (3)	1.5 (3)	8.0 (16)	22

[1] The value of N in Cattle slurry is 9 units/1,000 gallon (Based on total N of 2.4kgN/m³ @ 40% N availability by LESS application). Conversion - kg by 2 = units
Spring application of organic manures is required to maximize N recovery. Manures should be tested to determine manure nutrient content.
[2] Incorporation of high N manures within 2 to 6hrs after application assume 50% N availability
[3] Value of N = €1.97/kg, P = €4.16/kg, K = €1.60/kg for 2023 (Nutrient values based on price / volume of range of fertiliser products).
[4] Cost of spreading & transport not included. [5] Reduce P availability to 50% on P index 1 & 2 soils.
[6] Values under units/1,000gals or per ton have been rounded to closest unit. Updated 1st April, 2023

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Fig 3.5 (i) – Value of pig manure based on Nov. 2021 fertiliser prices.

Pig manure from this farm is;

a) Not a waste, but an organic fertiliser,
b) Not "disposed of" from the farm, it is a valuable organic fertiliser used by the customer farmers.

These are important concepts when framing the assessment of the use of this fertiliser.

It should be noted that

a) the customer farmers are entitled to continue to use organic fertiliser on their lands, and already do so
b) do not need planning permission to do so,
c) can continue to utiliser organic fertilsier from this existing development.
d) and are bound by the requirements of S.I. 588 of 2025 ,

While it is not practicable to assess the potential indirect effects of organic fertiliser utilisation, or more specifically the replacement of chemical fertiliser sources with organic fertiliser sources on all potential customer farmers (as every farm in the country is technically a potential customer (albeit constrained by transport logistics) it can be

concluded in general terms that the continued implementation of programmes and good practice measures (essentially as prescribed by S.I. 588 of 2025) will appropriately mitigate activities and potential indirect effects remote from the site.

The key issue in this scenario is - what is the project to be assessed? The main point in the scope of the EIAR is to assess the indirect effects of a project for the purposes of art. 3 of the EIA directive and art. 6(3) of the habitats directive. The CJEU noted the circumstances in which projects required assessment included those where they were likely to have regard to their interaction with other projects to have significant effects on the environment. Thus, measures such as project-splitting to avoid the EIA process were not a valid means to avoid the application of the directive. Having said that, there is also authority to the effect that the extent of the "project" for the purposes of the EIA directive includes developments to which it is functionally related, but not aspects that are significantly more remote, such as the continued utilisation by customer farmers of the fertiliser product produced on the farm in accordance with S.I. 588 of 2025 .

The organic fertiliser produced on this farm is a valuable product / resourse utilised by customer farmers in lieu of the alternative fertiliser sources (principally imported chemical fertiliser). The appropriate utilisation of organic fertilsier (and in particular on cropland) is included as a measured in the Marginal Abatement Cost Curve produced by Teagasc, and one of the cornertones of Irish Agriculture tools, to reduce Greenhouse gas emissions and reduce the overall impact of Irish agriculture.

The effects of continued organic fertiliser utilisation (with no increase in organic fertilsier production) as part of a fertiliser substitution programme in accordance with S.I. 588 of 2025 , on multiple and changing customer farmers is sufficiently removed from the project under consideration (i.e. pig farm) as not to be capable of assessment in site-specific terms, as the customer farmers are not a party to, and/or under the remit of this planning application. As such, and purely on a site specific basis, they are not to be considered part of the project for the purposes of EIA or AA, but on a wider level, the potential for effects need to be considered on a more programmatic basis (including specific programmes for the utiliation of these product(s) i.e. S.I. 588 of 2025 , which apply to every potential customer farmer within the country.

The down stream use of the organic fertiliser, (not a waste) which may be continue to be utilised by any customer farmer in line with S.I. 588 of 2025 in the wider agricultural sector, needs to be considered on a more pragmatic basis, and not on a site specific basis. It is widely accepted (by local authorities, An Bord Pleanala, The E.P.A. and DAFM) and understood that the customer farmers may and will change from one year to another depending on fertiliser demands, changes in land rental arrangements, farmers areas, farm succession sale/transfer etc., making site specific assessments essentially null and void, and why the pragmatic approach of compliance with national regulations and standards applicable to all customer farmers regardless of where the fertiliser is utilised is the more appropriate and robust position to adopt. The high standards of scrutiny of particular development consents don't apply to more general issues arising from overall programmes that are not site specific in the same way. ***There will be no increase in organic fetiliser production on the farm as a result of the currently proposed development.***

3.6 Process of Production

The main activities at this farm occur, and will occur, during normal working hours between 06.00 a.m. and 20.00 p.m. Stock inspections in line with normal farming practices are and will be carried out every day including weekends and holidays. Automatic feeding and ventilation systems operate on a 24 hour basis and in addition, essential activities may be carried out outside of core working hours. The production process on this farm will be in line with the requirements of Bord Bia, the D.A.F.M., Meath Co. Co. and/or other relevant regulatory authorities.

All pigs will be fed by means of an energy efficient, low maintenance, automated feeding system. Feed will be moved from the external feed storage bins, into the house. There may be a number of diets feed to the pigs with each diet tailored to meet the pigs nutritional requirements for protein/amino acids, energy, minerals and vitamins at that stage of production and to minimise nutrient excretion. This will ensure that pigs are healthy and contented and are reared properly so as to produce healthy efficient pigs which achieve set target food conversion efficiencies. Total Feed Consumption/annum is expected to be c. 50-55t per week. All feed to be used on this farm will be supplied from a specialist feed supplier such as Kiernan Milling, P & V, etc.

The production process will involve breeding and rearing pigs from the proposed sow herd to c. 35kg for transfer to off site rearing accommodation as opposed to the current farming practice of rearing to market weight for the local pig processing sector. All pigs produced with the exception of those being retailed for breeding stock will be moved off-the farm at c. 35 kg. 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 weaner houses. The piglets remain here on a complex diet until 50 - 60 days of age. They then leave this area and will move to off-site grower/finisher accommodation for further rearing and/or to the gilt rearing accommodation if selected as replacement breeding stock.

3.7 Procedures of Production

The applicant is currently approved under the Bord Bia approval system and other industry quality assurance programme(s), and same will be updated as required to reflect the revisions to the farm as currently proposed. The existing/proposed daily procedure follows / will follow the Bord Bia Code of Practice for pig welfare and consists / will consist of the following procedures, where applicable:

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 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) (applicable to the existing operations only) - 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.

4. Description of the physical characteristics of the proposed development, the land use requirements during construction and operation and the likely significant effects of the project on the environment.

The pig farm operation will result in the production of 2 saleable products; 1) weaner pigs @ c. 35kg's and pigs at the end of the breeding cycle, to be transferred to the pork/pig meat processing industry, and, 2) organic fertiliser for customer farmers. In addition a number of waste streams are also generated, and these may include, pig carcasses, veterinary waste and paper bags/general waste. The quantities of the various wastes generated, their storage and their ultimate disposal are detailed in the following sections. The only remaining emission from this farm is clean storm water from roofs and yards to the nearest watercourse(s) via the revised storm water attenuation system, and emissions to air.

4.1 Organic Fertiliser/Manure Production

The annual estimated production of organic fertiliser/manure from the farm is calculated in Figure 4.1.1. This estimation is based on calculations using S.I. 588 of 2025 . The manure production currently at this farm (c. 5,794.88 m^3 as per S.I. 588 of 2025) as amended) which will decrease marginally to c. 5,790.72.m^3 upon completion of the proposed developments.

Table 4.1.1 (a) Existing Organic Fertiliser/Manure Production

Existing Annual Manure Production.				
Animal Type Existing	**Number**	**Manure Production/place m^3/week***		**Total** M3
Sows (integrated) plus Served Gilts	280	0.398 (incl. in above figure)	52	**5,794.88**
Total				**5,794.88**

Table 4.1.1 (b) Proposed Organic Fertiliser/Manure Production

Proposed Annual Manure Production (Proposed Development- c. 640 Sows (excl. Served Gilts)breeding only).				
Animal Type Existing	**Number**	**Manure Production/place m^3/week****		**Total** M3
Sows (breeding)	640	0.174 (incl. in above figure)	52	**5,790.72**
Total				**5,790.72.**

***Data taken from European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2025 (S.I. No. 588 of 2025).**

4.2 Manure Storage Capacity

The tank capacities and the total manure storage on the pig farm are outlined in Appendix 7. The net manure storage capacity on this farm will equal c. 18,500 m^3 once the proposed works have been completed, increasing from 12,838 m3 as previously approved. The annual slurry produced will be 5,790.72. m^3, (See Figure 4.1.1). Freeboard allowance space, (*i.e.* the space between the top of the manure and the underside of the slats) of 200mm on covered tanks and 300mm on uncovered tanks, has been incorporated in these calculations. The required manure storage capacity based on S.I. 588 of 2025 , is 6 months.

4.3 Allocation of Organic Fertiliser/ Manure

The practice of applying animal manure to agricultural farmland as a valuable source of fertiliser is a well-established practice in farming (including on this farm) and currently widely practised by the customer farmers. Traditionally, a large number of farms had small numbers of pig/pigs and all of the organic fertiliser was returned to farmland. Due to economics and specialisation of production in order to survive, pig farming has evolved to a small number of farms with a larger number of pigs, however the principle of returning organic fertiliser from these pigs to farmland in order to utilise the nutrients contained therein still prevails.

The proposed development will be integrated/replace the existing farming activities with no increase in organic fertiliser production. All farmlands currently utilising organic fertiliser manure from this site are farmed by the customer farmers. However there is also the potential for other customer farmers in the area to utilise organic fertiliser from this development. As present this is not required as the proposed development once completed will not increase organic fertiliser production, there are significant existing customer farmers and if required the applicant has the capacity to utilise all (or relevant part thereof) of the organic fertiliser produced on this farm. This development can only supply <45 % of the applicant's existing fertiliser P required and significantly less of the fertiliser N required.

The operation of this farm will maintain the symbiotic relationship between the tillage / grassland farmers including the customer farmers, supplying grain to the Irish animal feed industry, by returning the manure to these lands for use as organic fertiliser. It is intended that organic fertiliser from this farm will be continue to be recycled onto land, upon which grain/tillage crops and/or grass is grown in order to utilise the nutrients contained therein for efficient crop production.

This organic fertiliser will continue to replace chemical fertiliser that would otherwise have to be used and/or is currently being used, by the customer farmers, to meet their existing fertiliser nutrient requirements. Due to the ever increasing costs associated with chemical fertiliser, organic manures such as pig manure are becoming ever more sought after by tillage/livestock farmers in order to reduce their fertiliser costs, increase soil organic matter and trace elements, improve nutrient uptake and ultimately improve returns. In this regard tillage farmers, such as the customer farmers, are keen to secure, and maintain, a sustainable source of organic fertiliser to fertiliser their lands.

This customer list will be revised on an ongoing basis. This will ensure that the customer farmers receive a cheaper source of fertiliser, while at the same time ensuring that there is a stable and consistent market for the organic fertiliser produced in the existing and proposed development.

The fertiliser from the farm will be allocated to lands, (to continue to replace existing predominantly chemical fertiliser sources) that have a recognised agronomic need for additional fertiliser in accordance with the requirements and stipulations of, S.I. 588 of 2025 , (European communities (Good Agricultural Practice for Protection of Waters Regulations 2022). All relevant information pertaining to any potential customer farmers and all other information as required by these regulations will be maintained on-site and will be made available for inspection as required. Upon completion of the proposed development the proposed customer list will be revised to take into account, new customer farmlands as they arise, updated information provided by the customer farmers and any changes to relevant legislation. Please refer to Appendix No. 1 for further details with regard to the current customer list, and general location of the currently proposed lands for the receipt of organic fertiliser from this farm.

At present this proposed development can only supply;

- < 45% of the calculated phosphorous requirements, and,
- significantly less of the Nitrogen requirements, (The organic N available from the proposed development equates to c. 75 kg Organic N/Ha averaged over the customer farmlands, well below the 170 kg Organic N/Ha limit).

of the customer farmers fertiliser requirement when this proposed farm is at full proposed operational capacity. A significant proportion of the currently identified customer farmlands are tillage lands with no available on-farm organic manure, therefore the availability of an organic fertiliser source is an important agronomic consideration for these farms. A significant amount of existing organic/chemical fertilisers will have to be continue to be applied to these lands to achieve optimum crop yields, as the existing/proposed development is not of a sufficient scale to satisfy the existing fertiliser requirements on these farms, ***and the development under consideration will not result in any increase in organic fertiliser production.***

The applicant is entitled to supply organic fertiliser to his potential customer farmers who want it and are not prohibited from using it. The use of animal manure to fertilise farmland is subject to statutory control under S.I. 588 of 2025 , and all records as required by same will be maintained by the applicant.

As detailed in section ***3.5 Fertiliser Substitution Programme*** the applicant farms c. 290 + hectares available for the application of organic fertiliser. The proposed development will maintain existing practices (replacing chemical fertiliser with locally generated organic fertiliser, as opposed to new practices on the customer farms) with no increase in available nutrients applied.

Application to land is the one practical economic means of utilising the nutrients in pig manure. Organic fertiliser from this farm will continue to be used as an alternative to imported artificial and /or organic fertiliser currently used. Manure will be utilised as an organic fertiliser by allocating it to those lands with a recognised need for additional fertiliser. The machinery to be used for this activity has been changed and modernised over the years to make this process more environmentally friendly. This fertiliser planning will result in fertiliser substitution, not addition.

To this end all farmers are advised that manure from this development should be applied to land in as accurate and uniform a manner as is practicably possible. A significant proportion of the lands currently identified for the receipt of manure form the proposed development are tillage lands, be they wheat, barley, Beans, Oil Seed Rape etc., and all farmers will be advised that in order to minimise any potential adverse environmental impact 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. 588 of 2025 and incorporated into the soil as soon as practicable after application and/or that other Low Emission Spreading Systems (LESS) shall be implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop.

The annual fertiliser value of pig manure is significant. Previously the tendency may have been to undervalue these products. However it is considered that significant benefit would arise in developing procedures whereby encouragement would be provided to fully utilise the nutrient value of animal manures as a substitute for commercial fertiliser, a fact that is being ever more understood and appreciated at a local, national and European level. Locally this is currently being driven by high/volatile commercial fertiliser prices and the realisation by farmers that locally produced organic fertilisers can provide a sustainable, valuable fertiliser source that will provide a greater range of macro and micro nutrients than that found in chemical fertilisers and provides improvements in overall soil structure / health.

The proposed development actively supports this philosophy by actively encouraging farmers to continue to substitute imported chemical fertilisers with organic fertilisers. The ideal situation is where organic fertiliser can be returned to tillage lands, upon which the crops to feed the pig (and other agricultural) industry were grown, such as the current existing and proposed development. Pig (and other) manures can reduce tillage production costs and improve soil structure, soil organic matter and soil organic status.

The fertiliser value of 1 m3 of pig manure has been calculated at €11, based on 2023 fertiliser prices (Teagasc 2023). This would mean that the total fertiliser value to the applicant from the c. 5,790.72 m3 manure produced in the proposed development is in the region of €60-65,000, similar to the existing activities. Pig manure is a very well balanced fertiliser source with good levels of available N, P, K, S, Mg, Ca and minor nutrients.

Available Nutrient Content & Guide Value (€) of Organic Fertilisers 2023

Organic Fertiliser Type	N kg/m³ (units/1,000 gal)[6]	P kg/ m³ (units/1,000 gal)[5,6]	K kg/ m³ (units/1,000 gal)[6]	Value €/ m³ Or (€/ 1,000 gal)[3,4]
Liquid Manures				
Cattle (6% DM)	1.0 (9)	0.5 (5)	3.5 (32)	9.7 (44)
Pig (4% DM)[2]	2.1 (19)	0.8 (7)	2.2 (20)	11 (50)
Soiled Water	0.48 (4)	0.08 (0.7)	0.6 (5)	2.2 (10)
Solid Manures	N kg/t[1] (units/t)	P kg/t (units/t)	K kg/t (units/t)	Value €/ton
Dungstead Manure	1.4 (3)	0.9 (2)	4.2 (8)	13
Farmyard Manure	1.35 (3)	1.2 (2)	6.0 (12)	17
Poultry[3]				
Broiler / deep litter	14 (28)	6.0 (12)	18.0 (36)	81
Layers (30% DM)	6.85 (14)	2.9 (6)	6.0 (12)	35
Layers (55% DM)	11.5(23)	5.5 (11)	12.0 (24)	65
Turkeys	14 (28)	13.8 (28)	12.0 (24)	104
Spent Mushroom Compost	1.6 (3)	1.5 (3)	8.0 (16)	22

[1] The value of N in Cattle slurry is 9 units/1,000 gallon (Based on total N of 2.4kgN/m³ @ 40% N availability by LESS application). Conversion - kg by 2 = units
Spring application of organic manures is required to maximize N recovery. Manures should be tested to determine manure nutrient content.
[2] Incorporation of high N manures within 2 to 6hrs after application assume 50% N availability
[3] Value of N = €1.97/kg. P = €4.16/kg, K = €1.60/kg for 2023 (Nutrient values based on price / volume of range of fertiliser products).
[4] Cost of spreading & transport not included. [5] Reduce P availability to 50% on P index 1 & 2 soils.
[6] Values under units/1,000gals or per ton have been rounded to closest unit. **Updated 1st April, 2023**

Fig. 4.2 Value of organic fertilisers 2023 (Source www.teagasc.ie)

The current customer list details that the applicant's tillage farm has capacity to utilise all of the organic fertiliser produced on this farm. The farm identified (as previously submitted to Meath Co. Co.) is in addition to the existing traditional customer base that have always used and will continue to utilise organic fertiliser from this farm. This farm has a requirement for > c. 200 % of the total organic fertiliser production on the farm (existing and/or proposed). There is the potential for additional customer farmers in the area to utilise organic fertiliser from this development. These farms may be supplied, in addition to the existing potential customer list, subject to the requirements of S.I. 588 of 2025 . The proposed development once completed can only supply c. 45% of the fertiliser P required and significantly less of the fertiliser N required, by the existing customers.

This organic fertiliser currently, and will continue to, replace chemical fertiliser that would otherwise have to be and/or is being used, as part of a fertiliser substitution programme. Due to the increasing costs associated with chemical fertiliser, organic manures such as pig manure are becoming ever more sought after by farmers in order to reduce their fertiliser costs. In this regard farmers, such as the potential customer farmers, currently identified in the customer list (Contained in Appendix No. 1), are keen to secure a source of organic fertiliser to fertilise their lands. This will ensure that customer farmers receive a cheaper source of fertiliser, while at the same time ensuring that there is a stable and consistent market for the organic fertiliser produced in the existing/proposed development.

Organic fertiliser from the site is, and will be, supplied for use in accordance with the Nitrates directive. In line with the requirements of, S.I. 588 of 2025 , (European communities (Good Agricultural Practice for Protection of Waters Regulations 2022). All

relevant information pertaining to the potential customer farmers and all other information as required by this directive will be maintained on-site and will be made available for inspection as required. Please refer to Appendix No. 1 for further details with regard to the current customer list. The general location of the currently proposed customer farmer(s) are is detailed in Appendix No. 1.

4.4. Location of Potential Customer Farmlands

The customer farmers currently identified in Appendix 1 are located in County Meath, (These lands are farmed by a director of Bogue Pigs ULC.), however given the location of the pig farm, the existing customer base will predominantly included lands in Cavan and Meath. The geographic location of the farm facilitates customers in these counties, and the applicant has his own transport system / designated contractor in place to facilitate these customer farmers. Customer farmers will continue to utilise the pig manure for efficient grass (grazing and forage conservation) and/or tillage production. This is primarily an agricultural area with low population densities.

Please refer to Appendix No. 1 for details pertaining to the general location of the currently proposed customer farmers already identified. It is anticipated that any other customer farmers that arise in this area, or within a reasonable distance from this pig farm can be supplied with organic fertiliser for use in accordance with S.I. 588 of 2025 .

4.5. Farmlands identified for the receipt of organic fertiliser.

In line with the requirements and stipulations of, S.I. 588 of 2025 , (European Communities (Good Agricultural Practice for Protection of Waters Regulations 2022) , all information pertaining to the potential customer farmers and all other information as required by this directive will be maintained on-site and will be made available for inspection as required. In addition each customer farmer will receive a copy of all applicable information as required by S.I. 588 of 2025 .

Included in Appendix No. 1 is a customer list detailing the potential customers (currently lands farmed by a director of the applicant company) for organic fertiliser from this farm This format, details the size of the farmland area and the requirement for additional fertiliser, as dictated by S.I. 588 of 2025 . Additional information is provided in Appendix 1 relating to the customer farmers lands These lands can accommodate c. > 200% of the organic fertiliser to be produced on the farm. All information as required by S.I. 588 of 2025 will be maintained on-site for inspection as required. Additional customers may be supplied with organic fertiliser from this farm as and when they arise.

4.6. Organic Fertiliser/Manure Application Rates

Organic fertiliser from this farm is, and will be, allocated for use in accordance with the requirements of S.I. 588 of 2025 and in line with crop requirements. This will ensure utilisation of the nutrient content of the pig manure, which is as follows:

Nitrogen*	4.2 kg/m^3
Phosphorous*	0.8 kg/m^3

*(S.I. 588 of 2025).

The customer farmlands will greatly benefit from receiving organic fertilisers and this will reduce the amount of imported energy in-efficient fertiliser that would otherwise have to be used.

4.7. Surface Water and Ground Water

Uncontaminated water from the roofs of the buildings and clean paved areas within the farm is, and will be, collected separately and discharged to the proposed to be upgraded storm water attenuation and drainage system. The applicant and/or other appointed person will inspect these points on a regular basis, and a record will be maintained of same. There will be no significant increase in the storm water emissions from the farm, with potential for significant adverse environmental impact as a Swale drainage system is to be implemented with a Hydro brake to limit storm water discharge to greenfield run-off rate.. Pigs will be moved on solid / slatted passageways at all times and any soiled water will be directed into the manure storage tanks.

4.8 Animal Carcasses and Animal Tissue Waste

Animal carcasses/tissues arise as a result of mortalities on the pig farm. While a certain level of mortality is unavoidable this is minimised due to a high health status and the provision of a high quality environment for the animals. All such waste is, and will be, disposed of at an approved rendering plant. Temporary storage of this waste will be provided at the farm by means of a covered skip. Arrangements have been made with a DAFM registered contractor, Mr. Michael Galligan, for the carcasses to be transported to an approved premises.

Animal carcasses are currently, and will be, transported by Mr Michael Galligan from this farm on a weekly / fortnightly basis. Please refer to Appendix No. 9 for further information in this regard. In the event of an outbreak of a disease requiring de-stocking this will be in accordance with and controlled by Department of Agriculture, Food and The Marine supervision and Batneec Guidelines, in order to avoid any detrimental impacts on the local environment.

4.9An 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 proposed development are referred to below. The proposed residues/emissions will vary proportionately with the change in stock numbers / operational practices on the farm, however the proposed alterations will have no significant net adverse impact.

4.9.1 Emissions

- ***Lighting*** in the premises will in so far as is possible, be by L.E.D. and/or other energy efficient lighting devices. Spent fluorescent and other specialised light tubes may be classed as 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. Solar panels are to be provided for to minimise emissions associated with energy use on the farm.

- ***Supplementary heating*** is to be provided primarily by heat pads. The amount of energy used will vary depending on outside climatic conditions. Energy efficiency will be a key deciding factor in the selection of a heating system and modern 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.

- ***Gaseous emissions*** (Principally odour, ammonia and dust) generated in the existing /proposed development in the site will not result in a significant adverse environmental impact. Appropriate mitigation measures will ensure that this farm does not adversely impact on the local area. There have been no complaints from local residents pertaining to the operation of this farm, and alterations to Gaseous emissions are discussed later in this report.

- ***Noise*** generated in the existing /proposed development in the site will not exceed legal limits at the site boundary. Noise is not expected to cause a nuisance at this site. Extensive experience with the existing site and a large number of other existing sites would not suggest that the proposed development is likely to have any adverse noise impact. There have been no complaints from local residents pertaining to the operation of this farm.

CONSTRUCTION NOISE IMPACT ASSESSMENT

A variety of items of plant will be in use for the construction of the pig farm development, such as excavators, lifting equipment and dumper trucks. There will also be vehicular movements to and from the site that will make use of existing roads. It should be noted that the proposed works are similar to those completed on the farm over the years and those works currently approved for this farm.

In order to ensure that the Pig Farm construction noise is reduced as far as practicable for these houses, we would also recommend that the following measures be employed:

- Limiting the hours during which site activities likely to create high levels of noise are permitted;
- Establishing channels of communication between the contractor/developer, Local Authority and residents etc.;
- Appointing a site representative responsible for matters relating to noise emissions;
- Maintaining all site access roads so as to mitigate the potential for noise emissions from lorries.
- Selection of plant with low inherent potential for generation of noise;
- Erection of barriers as necessary around noisy processes and items such as generators heavy mechanical plant or high duty compressors;
- Placing of noisy / vibratory plant as far away from sensitive properties as permitted by site constraints.

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

4.9.2 Wastes

➢ ***General/Mixed wastes*** such as packaging, paper, disposable clothing etc. will be collected regularly by a local contractor and delivered to the Landfill facility. It is intended that the frequency of collection of all wastes produced on site will be in line with legislative requirements in this regard. Waste materials generated on the site, under normal operating conditions, and/or during site development works, will be collected and transported off the site by appropriately authorised waste contractors to be consigned for disposal, recovery and/or recycling in appropriately authorised installations, as outlined in the Resourse and Waste Management Plan (See Appendix 14). Implementation of the control measures proposed will ensure in so far as it is possible that significant adverse effects on environmental parameters will not occur and that accidental emissions are unlikely from the existing, as well as the proposed, development.

Any paper or other such waste arising from paper waste or any other packaging waste will be stored in an appropriate bin. It is proposed that this will be collected by a local approved waste disposal contractor, such as Wilton Waste and brought to an approved site for disposal. The amount of the above waste types would be minimal on this farm,

and would be anticipated to be < 1-2 Tonnes/month under normal operating conditions. (See Appendix No. 11). The collection of all waste materials from the proposed development will be co-ordinated with the existing farming activities to minimise additional traffic as a result of the proposed development. There will be no increase in waste produced and/or traffic associated with the proposed development that would result in a significant adverse impact.

- ***Fluorescent Tubes/Construction and Demolition (C&D) Wastes.*** All spent fluorescent tubes (which are in the main being replaced by L.E.D.) etc. and/or any other wastes generated on site including all construction and demolition waste from proposed development, that is to be moved off-site, will be separated and stored in accordance with Meath Co. Co. guidelines prior to transport off site by an authorised contractor(s) for disposal/recovery at an approved disposal/recovery site.

- ***Dead animals and animal tissues*** will be accumulated in a sealed leak proof container (c. 1-2 tonne/week) on site for collection by Mr. Michael Galligan at weekly intervals for transport to an authorised Animal By-Products facility. It is intended that the frequency of collection will be in line with Local Authority. requirements in this regard. See correspondence which is included in Appendix No 9.

- ***Veterinary Waste*** arises as a result of spot treatment of sick animals. This waste comprises spent veterinary products, including antibiotics and vaccinations, out of date veterinary products, needles and syringes. It is proposed that this waste will continue to be stored in Sharp disposal bins, and that Initial Medical Services Ireland, or other approved waste contractor, will be contracted to dispose of this material. (See Appendix No. 11)

4.9.3 Residues / By-Products

The organic fertiliser / pig manure from this farm is/will continue to be managed as previously detailed i.e. utilised by customer farmers (incl. the applicants tillage farm) as an organic fertiliser in line with S.I. 588 of 2025 , and as part of a fertiliser substitution programme to replace alternative fertiliser sources. This organic fertiliser is not considered a waste product and is to be utilised as an organic fertiliser in line with S.I. 588 of 2025 . Soiled water will be collected with the pig manure/organic fertiliser and treated as organic fertiliser in accordance with the Nitrates Regulations. Normal operations on the site of the proposed development, as for the existing activities, will not cause any pollution of soil, and there will be no increase in organic fertiliser production as a result of this development/alteration to the farming system.

Applicable Good Practice measures (as required by DAFM, Bord Bia, or Meath Co. Co.) or Mitigation measures are to be implemented to prevent any significant effect of the proposed/existing installation, and the activities carried out therein, on environmental parameters. These measures are directed towards ensuring that the systems for collecting wastes and removing them from the site for appropriate treatment in authorised waste treatment installations will be adequate for that purpose.

4.10 Services

4.10.1. Electricity

Mains electricity exists on the farm, with a single / three phase supply. The electricity is to be used for the following:

- Control systems for automatic feeding systems including augers, mixers and pumps.
- Power for automatic ventilation systems.
- All artificial lighting to pig housing, offices and outside yards
- Power for water pumps, etc.

Solar panels are to be provided for to meet some of the farms energy requirement.

4.10.2. Water

Water supply will come from the on-site well. Water is to be stored in an on-site water storage tank with at least 24 hours supply. Proposed Annual water usage = c. 10,000 m^3/annum.

4.11. Fly and Pest Control

Flies, rats and mice are carriers of some of the infections that are detrimental to pig health. In addition, rats and mice can cause considerable damage to insulation materials and accessible woodwork, thereby reducing buildings thermal efficiencies and longevity. A programme for fly control and rodent control has been implemented on this farm, in line with Bord Bia guidelines, and same will be updated upon completion of the proposed development.

4.12. Difficulties encountered in compiling the required information

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

As this is an application for development on, or adjacent to, an existing farm (with no net intensification of activities as previously outlined) to ensure compliance with animal welfare and environmental regulations, and to develop an efficient modern farm, the assessment of any potential impact is factual as well as perceived. 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 existing and/or proposed development.

5. DESCRIPTION OF REASONABLE ALTERNATIVES

5.1. Alternative Sites Considered

Since this E.I.A.R. is concerned with the development, modernisation upgrading of an existing farm, and the associated alteration/specalisation from an existing c. 280 Sow (ex. served gilts) integrated pig farm to a 640 Sow (excluding served gilts) place breeding pig farm, the question of an alternative site(s) does not arise, to the same extent as if the applicant were looking to develop a totally greenfield site. Pig farming activities have been carried out at this site since the early nineteen seventies. The farm has been owned, developed and operated as a pig farm for the last 50+ years.

As part of the scoping exercise for this proposed development a number of alternative sites were considered. The areas considered by the applicant for the proposed development, included, but were not limited to the following;

- ***Other lands owned by, and/or available to, Bogue Pigs Unlimited Company*** While additional potential sites were looked at, on lands owned by the applicant, they were deemed to be less suitable for a number of reasons, including poorer road access, higher density of residential dwellings in close proximity, failure to visually integrate with existing structures adjacent, etc. The existing site has no significant and/or specific environmental constraints which mitigate against the proposed site and/or would support the selection of any alternative site available to the applicant, in preference to the currently proposed site. The current proposed site is the only site that achieves the objective of modernising the existing farm structures, facilitating the conversion of the existing farm to a specialised breeding farm, optimising farm management and minimising the potential impacts of the existing farming activities.

- ***Purchase and re-development of an existing pig farm site.*** This option had to be discounted as there were no suitable sites located close to the applicant's existing farming activities, with which the proposed development will integrate with, which would be a significant disadvantage for the management of the proposed development, a significant financial drawback. This option would not address the requirement to transition the existing farm to a specialised breeding farm, and the existing site/farm would still have to be upgraded and operated in line with the previous permission as granted.

- ***Purchase of an entire Green-field site.*** This option has been discounted at present as it was determined that a separate site would be significantly less efficient due to the additional costs involved in the site purchase cost, and would by its nature have to be remote from the existing farm. This would place the proposed development under significant additional financial strain, and notwithstanding same it was felt that the proposed site was the most suitable to integrate with the existing farming activities, and has been previously approved by Meath Co. Co. This option would not address the requirement to transition the existing farm to a specialised breeding farm, and the existing site/farm would still have to be upgraded and operated in line with the previous permission as granted.

The consideration of any alternative site would not achieve the applicants twin objectives in relation to upgrading the existing site and transitioning to a specialised breeding farm.

It is intended to provide additional structures on the farm at this point in time when welfare and environmental requirements, market demands, efficiencies of production and economics are requiring the construction of new accommodation on-site. In addition it is planned to consolidate activities on the farm, and progress this farm as a 640 Sow breeding pig farm. Bogue Pigs Unlimited Company has proposed the development to improve efficiencies and to help ensure that this farm can operate in a competitive and viable manner.

Development on the proposed site will significantly improve efficiencies for the applicant. This existing farm is described as a c. 280 Sow (ex. served gilts) integrated pig farm located at Ballinrink, Oldcastle, Co. Meath , which will develop to a c. 640 Sow breeding pig farm.

The objective of this development is two fold.

- ***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, labour etc. laid on. Although this farm has received investment and is operating to a high standard, the currently proposed development and alterations to the production system will allow the applicant to further improve activities and efficiencies on the farm, optimise the use of the resources available to the applicant, and improve the existing activities on the farm.

- ***And secondly,***

the proposed development is to allow for the development of this farm, with a sustainable alteration of activities, with satisfactory accommodation for the enlarged sow herd size and to rear pigs to 35 Kg's, and to make provision for the required washing routines and all in/all out specialised production system. The applicant is seeking to develop a farm that is of a sufficient scale to operate as a viable and sustainable farm, while at the same time permitting a consolidation of farming activities, and improvement in bio-security, animal health and welfare, and environmental standards in line with increasing requirements.

It is intended to progress the farm towards a c. 640 Sow breeding pig farm. At a time in the Irish pig industry when margins are extremely tight it is essential that every pig farm is run and managed as efficiently as possible. This is achieved with the efficient use of inputs and optimising animal performance.

In the assessment of any impact from this proposed development it is essential to remember that revisions to the previously approved farm are sought to improve environmental and welfare standards, with additional developments to facilitate the proposed alteration/specalisation of the farming activity. In addition it is anticipated that the overall development will improve the efficiency and thus the economic viability of this farm by,

- Consolidating animal numbers on the farm by altering the scale of the farm towards a specialised c. 640 Sow (excl. Served Gilts) breeding pig farm.

- Implementing (and/or continuing to implement as may be applicable) a significant array of measures such as c. 30+ months storage capacity; underground leak detection facilities; surface water, ground water and leak detection monitoring etc. to help mitigate against any potential and/or perceived potential adverse impact from the existing/proposed development,

- Providing an improved standard of housing thus improving the performance. This increased performance will be as a result of improved health and housing conditions, improved genetics, and will help increase the feed efficiency of the pigs, thus less feed and other resources will be consumed and less slurry produced/unit of pig meat.

- Providing welfare compliant accommodation in line with the requirements of S.I. 311 of 2010 (Please refer to Appendix No. 16), and additional updated/expected requirements pertaining to farrowing sow accommodation.

- Improvement in the quality and quantity of manure storage structures.

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

- Existing Pig farm located on the site and area required for the proposed development owned by and/or available to the applicant. In addition pig farming activities on this farm have previously been approved / are currently authorised by Meath Co. Co. at this location.
- The proposed alteration/specalisation will capitalise on the existing specialised labour and genetic potential of the stock on the farm.
- Suitable area to accommodate the proposed development.
- 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.
- It was determined that this development was required to modernise the existing site and to realise the full potential of the site.
- Significant local demand for organic fertiliser from the existing farm.
- Skilled staff available.

5.2. Alternative Layout and Design

The existing layout and designs were researched with the Industry Pig Specialists and the local Teagasc adviser at the time of construction. The design of the proposed development to be undertaken by the applicant was researched and reviewed with the aid and guidance of the Teagasc pig advisory service, C.L.W. Environmental Planners Ltd. and commercial pig equipment suppliers.

The layout of the proposed housing was designed to ensure that the proposed developments were integrated into the existing pig farm site, and adjacent to, and visually integrated with, the existing farmyard with minimal, if any, adverse visual impact on the surrounding landscape. The proposed layout was also designed so as to ensure:

- optimum access on site for all traffic associated with the proposed developments,
- to ensure that the site is contained, safe and efficient in operation, and,
- has been revised to incorporate increasing animal welfare requirements and change to a specialised pig breeding farm.

The topography of the site is gently sloping and the levels of the proposed development will be in keeping with the existing structures. The proposed development has been laid out to integrate with the existing ground contours and to run close to the existing structures and closest structures to help visually integrate same into the site. The ground levels are as depicted in the site plans, sections and contour details as submitted with this application. A copy of same is contained in Appendix No. 3. The currently proposed site is the appropriate position for the proposed development to upgrade the existing structures/activities and integrate with the existing farm from both a physical and operational perspective.

The exterior finish, where practicable will be grey/green or similar in colour, similar in nature, design and finish to the adjacent buildings and to a large number of agricultural buildings completed locally, within the county and country wide and will be sympathetic to the local environment. All roofing materials will be grey/green in colour. As natural/dark coloured/grey finishes are proposed, no other alternatives were deemed appropriate.

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

- Complies with the requirements of the Nitrates regulations.

- Satisfies the applicants need for efficiencies of scale while not requiring significant additional lands.
- Will be well integrated into the landscape with the use of similar construction techniques, natural/dark coloured finishes as proposed, and additional landscaping where required.
- Complies with the requirements of the County Development Plan.
- Low emission housing design principles were incorporated in line with Bref. Requirements in order to reduce gaseous emissions and environmental impact. Furthermore covering of the open storage tank will reduce rain water ingress, overall organic fertiliser volumes and any associated impacts.

BREF (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 pig or pigs) has significantly reviewed all housing systems and operational practices, and it was deemed appropriate to develop a housing system on the farm that complied with same, and utilised

the assessment of housing and management/operational systems already completed (without the need to additionally review all such housing / management / operational systems as part of this EIAR.). The approved housing system (frequent removal (houses 29 and 30) and slurry cooling (Houses 31, 32 &34 and extension to house 1 (Ref. 33)) and operational practices have been chosen to maximise efficiencies and reduce potential for adverse environmental impacts, while at the same time taking into account which of these approved systems/practices best fitted with the existing practices and infrastructure/other resources already available on the farm.

5.3. Alternative Size

The proposed scale of the farm has been established based on the labour and facilities available to the applicant, and optimises the use of same, and while the stock numbers are altered the scale of activity is essentially unchanged, i.e. the proposed increase in the sow herd are off-set by the reductions in finisher pigs.

Proposed Development The farm will be developed as an 640 Sow (excl. Served Gilts) breeding pig farm . Alternatively the farm could have remained as an integrated pig farm, however this would not achieve the efficiencies required, improved bio-security and herd health and specialisation of production. In addition the return from the expertise available on the farm and from the high genetic merit stock is increased with the larger breeding herd size. The proposed development is of a size;

- that can be easily managed by the applicant,
- represents a sustainable development on the existing site,
- no increase in organic fertiliser production, ammonia or odour emissions and/or resource consumption.

5.4. Alternative Processes Considered

The Teagasc pig advisory service was set up in the early eighties and Bogue Pigs Unlimited Company used this service as an integral part of planning this proposed farm development. The processes to be carried out in the proposed development will be similar in nature to the previous/existing 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.

Typically pig farms operated one of 3 management systems;

- An integrated farm (as this farm currently operates)
- A specialised breeding farm (as proposed).
- A specialised grower/finisher farm essentially taking the pigs from a breeding farm to market weight.

While the applicant could continue to operate the farm as an integrated farm (as currently approved) this does not optimise the use of this farm and the specialised labour there on. Further more the specialisation of the farm will facilitate improvements in biosecurity and health status of the herd. The rearing of the pigs produced on the farm can be carried out by existing rearing farms remote form the site and where management requirements are not as specialised.

Utilisation of manure is carried out by allocating manure to those customer farmers with a recognised need for additional fertiliser as part of a fertiliser substitution programme, in line with fertiliser nutrients requirements as prescribed by SI 588 of 2025 . 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 that Low Emission Spreading Systems (LESS) (low trajectory splash plate as a minimum), shall be implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop.

There is no other satisfactory economic or environmentally friendly alternative process for commercial pig production under Irish climatic conditions.

5.5. Alternative Management of By-products

Application to land is the main practical economic means of utilising the nutrients in pig manure. Organic fertiliser from this farm will be continue to be used as an alternative to imported organic/artificial chemical fertiliser. Manure will be utilised as an organic fertiliser by allocating it to those lands with a recognised need for additional fertiliser in line with fertiliser nutrients requirements as prescribed by SI 588 of 2025 . All farmlands currently proposed for the receipt of organic fertiliser from, the proposed development, are farmed by the customer farmers, incl. the applicant. 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 manure from this development should be applied to land in as accurate and uniform a manner as is practicably possible.

The lands currently identified for the receipt of manure from the proposed development are predominantly tillage lands, be they (Wheat, Barley, Beans, Oil Seed Rape etc.,) and grassland, and any new customer farmer will be advised that in order to minimise any potential adverse environmental impact 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. 588 of 2025 , and, where possible incorporated/ploughed into the soil as soon as practicable after application. All organic fertiliser from the proposed development will continue to be utilised by the customer farmers, to replace existing organic/chemical fertiliser use as part of a fertiliser substitution programme, under optimum soil and weather conditions and in line with fertiliser nutrients requirements as prescribed by SI 588 of 2025 .

In any event this proposed development (which will not result in an increase in organic fertiliser production) can only supply;

- <c. 50 % of the Nitrogen and Phosphorous requirements,

of the identified Customer farmlands when this proposed farm is at full operational capacity. Therefore a significant amount of additional organic/chemical fertilisers will have continue to be applied also.

At present there is no other suitable option for the utilisation of organic fertiliser produced within the existing/proposed development, however the applicant will continue to examine the possibility of alternative uses for this fertiliser. All customer farmers will be advised that low-emission spreading techniques should be employed where possible.

Trial work conducted by EOLAS on alternative disposal/treatment methods for pig manure was carried out in the Sheelin area approximately 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, have 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, and if anything the recent increase in chemical fertiliser prices have increased the value of this product for use as a fertiliser. Furthermore the utilisation of a locally produced organic fertitiser as opposed to chemical fertiliser imports, promotes the circular economy, reduces reliance on imported fertilizers from places like Belarus and Russia and is a sustainable and natural use for this fertiliser resource. Organic fertilizers play a significant role in a circular economy by transforming waste materials into valuable resources for agriculture. They contribute to nutrient recycling, soil health, and reduced reliance on synthetic fertilizers, aligning with the principles of a circular economy.

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

5.6 Do Nothing Scenario

The proposed development is to be completed on an existing pig farm site within the applicant's existing landholding previously approved by Meath CoCo and where permission has been recently granted for an infrastructural upgrade of the farm.

The development as proposed is substantially similar in nature and, to that as previously approved by Meath Co. Co. for this farm, however the current development will provide for additional accommodation necessary to facilitate the transition to a specialised breeding farm. The proposed development has been modified to accommodate changes in animal welfare and environmental requirements to ensure that the existing activity is modernised and can operate in line with current welfare and environmental requirements while still facilitating an sustainable upgrading of facilities and specialisation of activities on the site.

Therefore, the baseline (or do-nothing scenario) in the absence of any alternative proposed development is that

A) The proposed development area remain as a brownfield / agricultural area, and the existing operational activities would continue unaltered. (In the event that the existing approved development were not completed)
B) The previously approved development would be completed, and the existing operational activities would continue unaltered.

The do nothing scenario as outlined above would not allow the applicant avail of improvements in management, bio-security, efficiency of production and health status of the herd as detailed in this application. In addition, and as outlined here after the improvements in management and operation of the farm will reduce some potential impacts below existing levels, this improving the characteristics of the farm and reducing potential impacts.

Note:

The receiving environment and the effects of the project are explained by reference to its possible effects on a series of environmental factors: as outlined in the following chapters.

6. **Population / Employment / Human Health**
7. **Land, Soils and Geology**
8. **Water**
9. **Air and Climate**
10. **Landscape and Visual**
11. **Noise**
12. **Biodiversity**
13. **Cultural Heritage**
14. **Material Assets (including Traffic and Transport, Services and Utilities)**
15. **Summary of Potential Effects**
16. **Interactions of the Foregoing**
17. **Environmental Management Plan and Schedule of Mitigation Measures**

6 Population / Employment / Human Health

6.1 Introduction:

This site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

6.2 Environmental Setting / Receiving Environment

As a county, Meath has seen unprecedented growth in its population over the last 10-15 years. This was significantly driven by its close proximity to Dublin and the commuter routes that have developed.

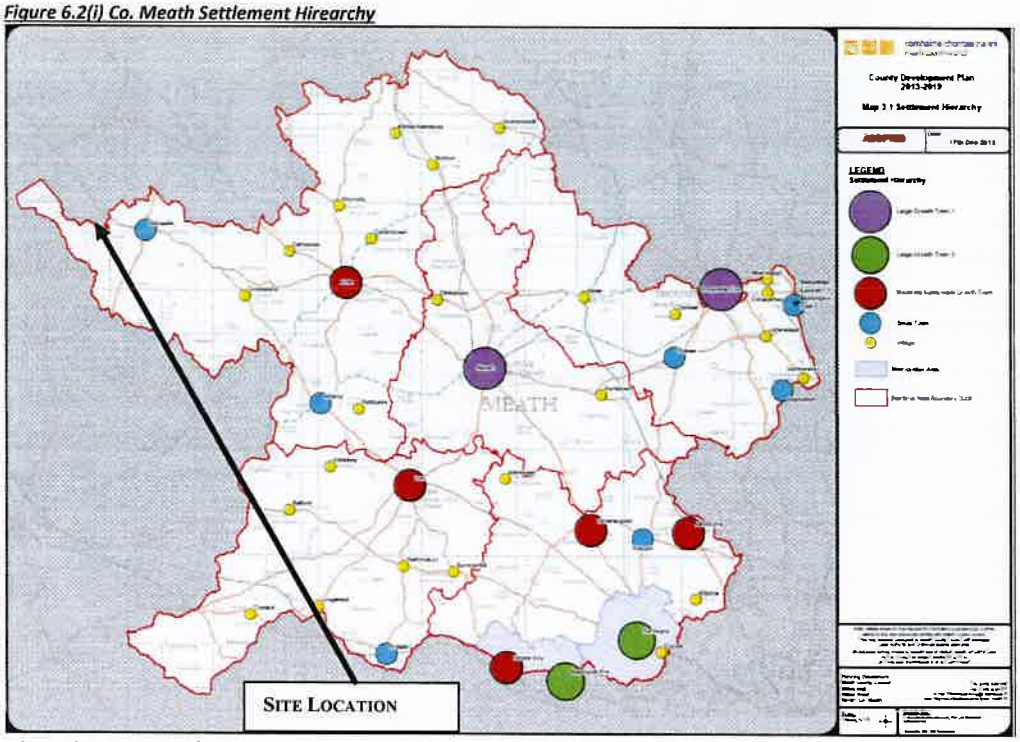
The agri-food sector continues to play an integral part in Ireland's economy and is our largest indigenous industry, contributing 173,400 direct jobs and generating 10.4% of merchandise exports in 2016. The Local Economic and Community Plan 2016-2021 (LECP), indicates that the number of people working in Agriculture, Forestry and Fishing (AFF) in the County has reduced significantly. In 1991 there were 5,823 working in the industry, this figure has been steadily reducing, in 2011 there were 3,748 employed in this sector and this has fallen to 2,862 in 2016.

To sustain rural communities in the changing economic climate, farm diversification and new employment opportunities will therefore be required. The government has acknowledged the specific issues posed by Brexit to the rural economy and is seeking to support vulnerable businesses in their response to the changing economic climate through initiatives such as the Brexit fund and the implementation of Food Wise 2025, and the Agri Food Strategy 2030.

In recent years there has been significant growth in the demand for fresh local produce. Developments in horticulture and in value added food and agricultural enterprises are sectors with opportunities for growth. Agriculture will continue to be an important component of the economy. The agricultural sector must adapt to the challenges posed by modernisation, restructuring, market development and the increasing importance of environmental issues. An economically efficient agricultural and food sector, together with forestry, sensitive exploitation of natural resources and diversification into alternative on-farm and off-farm activities, are essential components for the development of the rural economy.

"The role of the rural area as a key resource for the county is vital and agricultural and amenity lands should be carefully managed to ensure that their primary use is protected from encroachment, fragmentation and urban driven development."

Figure 6.2(i) Co. Meath Settlement Hirearchy



The objective of this planning application is to progress a sustainable farm diversification / modenisation, replacing the existing integrated farming model with a specialised pig breeding farm. This will allow the applicant to ensure the highest levels of stock manship and bio-security are maintained on the farm and is in line with modern practices in sustainable high welfare and efficient pig farming systems that meet ever increasing animal welfare and environmental requirements.

The proposed works will complement the existing activities on the farm and comply with the supermarket/consumer requirements for high welfare, environmentally sustainable Irish produced food, to the benefit of both the applicant, ancillary businesses including Kepak / McCarrons, feed suppliers such as Kiernan Milling, local construction equipment supply / service companies, customer farmers agri. enterprises and ultimately the consumer with the production of safe nutritious locally produced food produced to a higher welfare standards, and produced in an economically and environmentally sustainable manner.

The transition to a more sustainable form of agriculture, which minimises resource (feed, water and energy) consumption per unit of production will be essential to meet the ever increasing societal demands on an increasing population, while at the same time helping to avoid food poverty. As one of the lowest Carbon Footprint farmed animal protein source together with high levels of efficiency pig production is well placed to meet these societal requirements.

Furthermore as developments such as the proposed development are required to meet domestic demand for high welfare Irish produced food, with minimal carbon footprint / environmental impact, the proposed development is intrinsically sustainable and beneficial to the Irish economy.

6.2 (a) Amenity Areas

The proposed pig farm site is not located near any of the tourist/amenity areas as listed in the Meath County Development Plan. See Figure 6.10(2) below.

These areas include;

- areas of major / secondary tourist attractions,
- paths, cycle-ways and/or driving routes,
- key view points, and/or,
- the extent of any views,

6.2 (b) Tourism

Bogue Pigs Unlimited Company are very aware of the beneficial impact that tourism is having on the local economy of the Meath area. The local tourism industry in this area is based primarily around the natural landscape and rich heritage of the county, including the Boyne River, Bru Na Boinne World Heritage Site, and a significant number of associated ancillary businesses. The existing/proposed pig farm site itself will in no way affect the tourism industry in the area due to the fact that, this is an established farm, in a remote location, will be well screened from public view, and is located away from any areas frequented by tourists.

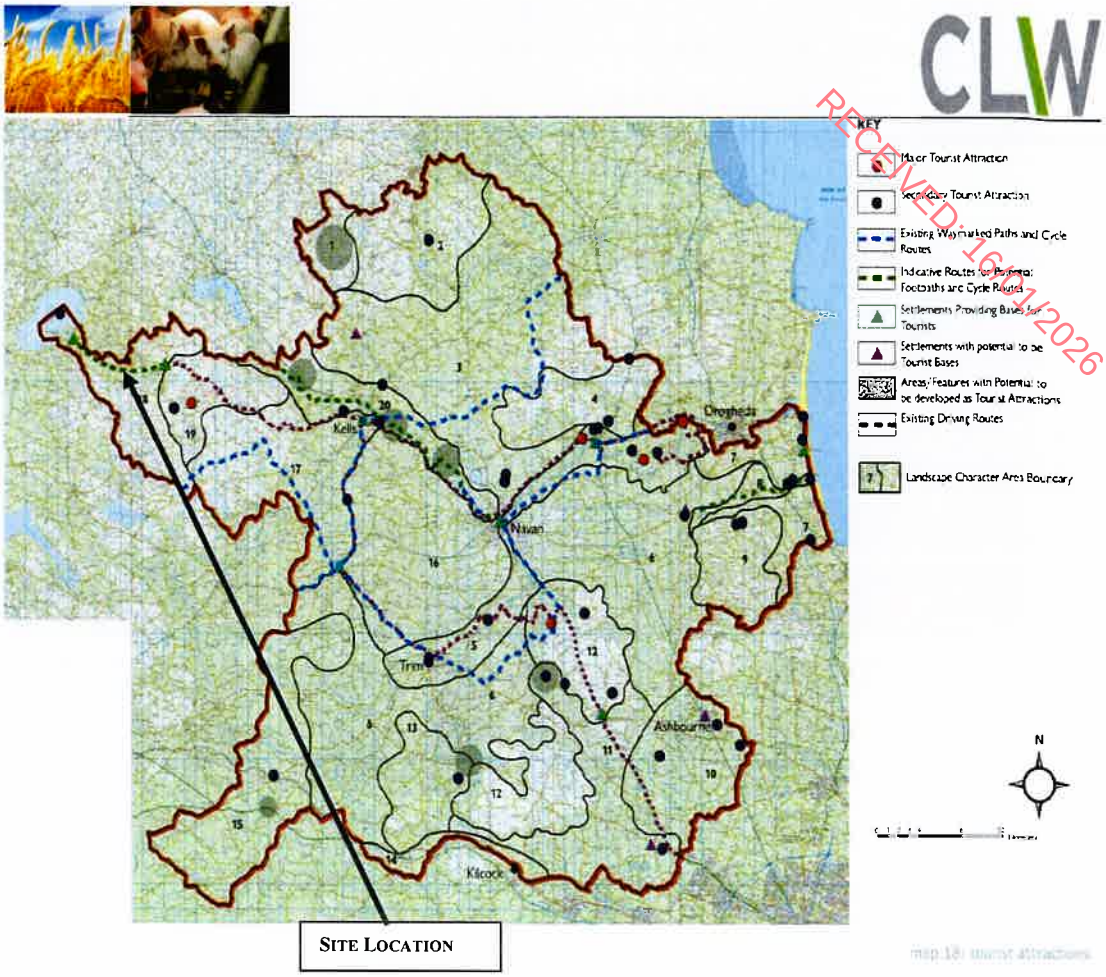


Figure 6.2(ii) Location of Amenity Areas within Co. Meath

6.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Residual Effects

As previously stated agriculture is important to the ecomomy of Co. Meath. It is anticipated that employment in the traditional agriculture sectors will continue to decline, resulting in opportunities in farm diversification and off farm employment becoming critical to the survival of many rural communities." The proposed development will secure the existing jobs already employed while at the same time improving the economics of the customer farmers existing farming activities.

The proposed development will secure the existing agricultural employment for c. 3 - 5 people directly on a full time basis. Outside service employment for building contractors, repairmen, nutritionists, veterinarians, hauliers and sales personnel are a spinoff of this development. The proposed site is located well away from any of the larger settlement areas in the county. The well being of the agricultural/pig industry in the county, and specifically in this area, is essential in halting the decline in rural employment. This activity contributes to the employment in rural communities and will therefore help stabilise the rural population.

The farmers utilising organic fertiliser from this farm will continue to benefit from low cost fertiliser as a result of the Fertiliser Management Programme. The proposed development and existing activities have been planned and will be operated to the benefit of the applicant, the local community in terms of direct and indirect employment, agricultural economy and construction industry.

The Meath County Development Plan encourages the development of appropriate agricultural enterprises; however appropriate activities will be required to have a minimal negative impact on the landscape and physical environment. It is felt by the applicant that the proposed development, (as borne out by the previous decision of Meath Co. Co. to approve developments on this farm) satisfies of Meath Co. Co. requirements as per the policies on Agriculture as outlined in the County Development Plan, as detailed below;

Agricultural Buildings

The provision of well located structures and facilities necessary for good and environmentally sound agricultural practice shall be supported by Meath County Council. The suitability of a given proposal will be determined by the following factors:

- **The provision of buildings to a design, materials specification and appearance and at locations which are compatible with the protection of rural amenities. Particular attention should be paid to developments therefore in sensitive landscapes as identified in the Landscape Character Assessment**
- **The availability of an effective means of farm waste management to ensure nutrient balancing between application of farm wastes to land and its balanced uptake by agricultural use of land;**
- **Whilst Meath County Council recognises the primacy in land use terms of agriculture in rural areas, and that the presence of individual housing should not impinge unduly on legitimate and necessary rural activity, regard should also be had to the unnecessary location of major new farm complexes proximate to existing residential development.**

These development plan policies recognise the important and varied role of agriculture within the economy of Co. Meath. These policies serve to recognise and support development proposals that will enable farming to become more competitive, sustainable, environmentally and welfare friendly; adapt to new and changing markets; diversify into new agricultural opportunities; and broaden their operations to "add value" to their primary produce, while protecting the environmental and cultural heritage of the County.

This proposed development is located in a rural agricultural area, where such developments are to be facilitated by the local authority, and it is not located near any scenic walks or viewing points. The location of the proposed site, integrated into the surrounding landscape (natural and built), obscured by its location and integrated where possible with the land topography and the existing landscaping, will ensure that this proposed development is incorporated into the local environment, with no adverse visual impact, while at the same time complying with Department of Agriculture, Food and The Marine and Bord Bia requirements.

The proposed development of pig housing, will modify the existing farming activities and will provide for a sustainable farm diversification for Bogue Pigs Unlimited Company in line with supermarket and consumer requirements, for pork. The proposed development will be located;

1. in a rural agricultural area,
2. significantly removed from any population centres,
3. located away from any designated areas and/or tourist attractions.
4. well integrated into the local environment with sympathetic design and layout,
5. with proper measures in place for the storage and removal of wastes off site,
6. with all pig manure from the proposed developments to be utilised as organic fertiliser on lands, to substitute for imported chemical fertiliser in accordance with S.I. 588 of 2025 ,

will help to ensure that the proposed development will be in accordance with the stated plans and objectives of Meath Co. Co. as outlined in the county development plan.

The mitigation measures already taken with regard to site design and location, and the proposed mitigation measures to be taken as part of the planned operation of this farm, in addition to the requirements of Meath Co. Co. as detailed in the conditions attached to any grant of planning permission that may issue, will ensure that this farm operates with no negative impact on Human Health, Population, landscape and/or physical environment. In addition to the above the alterations to the existing development on this farm are brought about by ever increasing standards including;

- Environmental, and,
- pending welfare requirements.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (increasing from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc. As outlined in this EIAR the proposed alterations in the production system and improvements in infrastructure and operational practices will lead to reductions in odour and ammonia emissions.

While requiring a certain amount of land upon which the development will be completed this will primarily be completed on an existing pig farm site, and given the setback from the local road and third party dwellings will have no adverse impact on the landscape, character and/or environment of the local area. The development has been designed to ensure the proper access and egress from the site, located remote from third party residences, and similar in design and layout to the existing developments on the farm.

The measures already taken with regard to site design and location, and the proposed good practice measures (As required by S.I. 588 of 2025) and mitigation measures to be taken as part of the planned operation of this farm, in addition to the requirements of Meath Co. Co. and the Environmental Protection Agency as detailed in the conditions attached to any grant of planning permission or E.P.A. Licence that may issue, will ensure that this farm

operates with no negative impact on Human Health, Population, landscape and/or the interaction of same with the local environment.

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 proposed development 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.

Bogue Pigs Unlimited Company will ensure that any potential effects on the local environment and tourism industry are minimised. Bogue Pigs Unlimited Company will inform all farmers in receipt of organic fertiliser from the proposed development, of the requirements of the S.I. 588 of 2025 , in relation to spreading of animal manure's and overall good farming practice so as to at least maintain, if not improve, this balance. The proposed development itself, integrated into the existing farm and associated landholding, will in no way affect the tourism industry in the area due to the fact that, it is in an agricultural area and a remote location, will be well screened from public view, and is located away from any areas frequented by tourists.

The potential risk to human health 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 proposed development 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.

Agriculture and tourism are two of the most important industries to the economy of this area. A significant proportion of rest of the economy of the area has arisen as ancillary services/businesses to these two main industries. It is of extreme importance therefore that these two industries can coincide and develop together for the good of everyone in the area.

It is proposed to alter stock number on the farm to 640 Sows operating as a specialized breeding farm (altering from the existing 280 sow integrated pig farm), however as will be detailed in this EIAR this revision to the farming system, while changing numbers (increasing sows and weaners and reducing growers/finishers) will result in no intensification of activities when considered in terms of resource consumption, waste and by-product production, emissions and /or traffic etc. As previously outlined organic fertiliser production will be unchanged and potential odour and ammonia emissions will be reduced.

Once manure spreading activities are carried out in accordance with the Codes of Good Practice and S.I. 588 of 2025 , there will be no adverse environmental impact, except for the possible impact of odour. Application of animal manures to farmland is a standard farming practice, as old as farming itself. The odour impact associated with the application of animal manures is a transient one that only lasts for 2-3 days. Customer farmers will be advised that the allocation of organic fertiliser from this farm to customer farmlands in

close proximity to areas frequented by tourists, should be carefully timed and planned so as to minimise any unnecessary potential disruption.

Agriculture is an all year round industry whereas tourism is mainly a seasonal one with the majority of the trade occurring in late spring, through the summer and into early autumn. The pig farm site itself will have no impact on tourism in the area, however, the activity of manure/organic fertiliser spreading needs to be planned and properly carried out according to all the Codes of Good Practice. The applicant will prioritise customer farmers whose lands are away from areas frequented by tourists or areas with a higher population density for the application of organic fertiliser.

7. Land/Soil/Geology

7.1 Introduction:

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

While requiring a certain amount of land upon which the development will be completed this is minor in terms of the applicant's overall landholding and given the setback from the local road and third party dwellings will have no adverse impact on the landscape, character and/or environment of the local area. The development has been designed to ensure the proper access and egress from the site, located remote from third party residences, and is similar in design and operation to the existing developments on the farm.

7.2.1 Topographic Features and Solid Geology

(a) Site and immediate area.

The farm area is c. 4.05 hectares and it located in a rural area, in the townland of Ballinrink in Northwest of Co. Meath. County Meath is situated in the east midlands of Ireland. The proposed site is located in the north of the county, c. 0.44 km's from the border with Co. Cavan. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

In the Meath County Development Plan 2021-2027 (Appendix No. 5 ~ Landscape Character Assessment), the existing development, and proposed development site is located within the Lough Sheelin Uplands (Area 18),

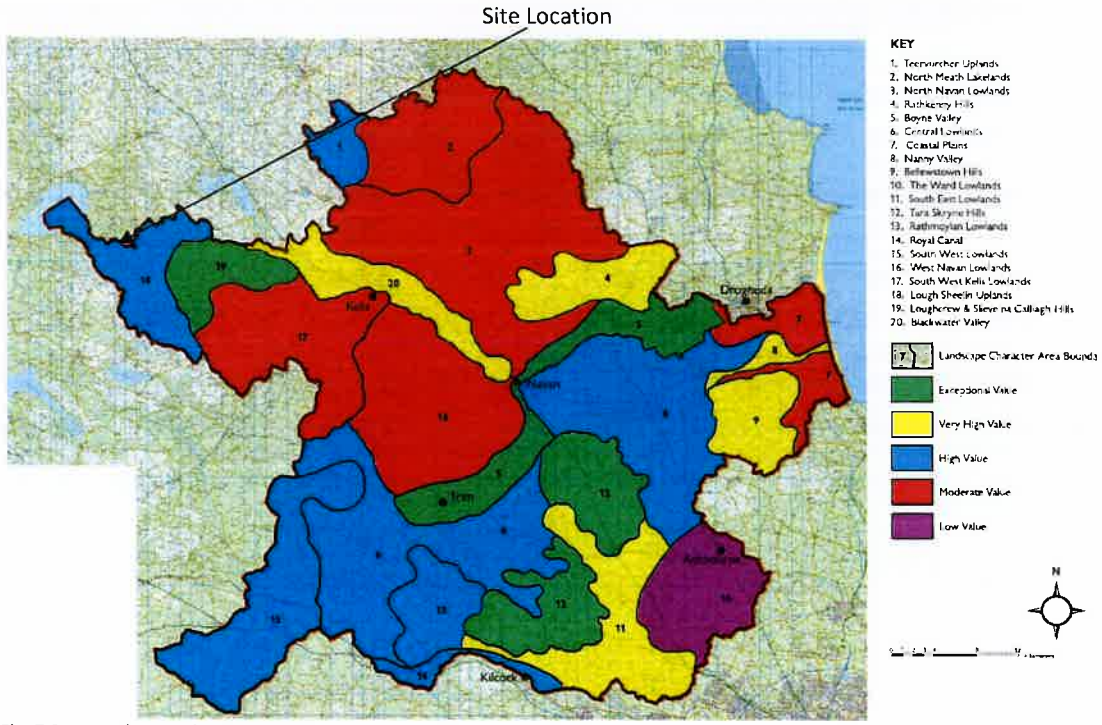


Fig. 7.2.1a Landscape Character Areas

This area is classed as having a high landscape character value, with high sensitivity. The proposed development will not adversely impact on same as it will be integrated into, and replacing a significant amount of the existing pig farm site.

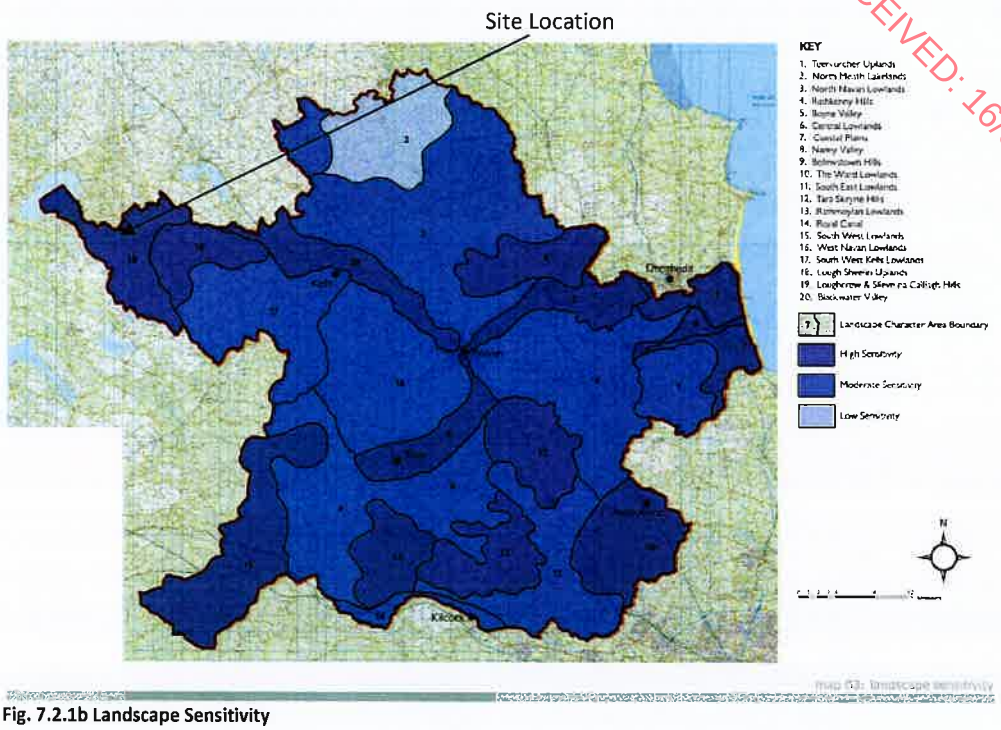


Fig. 7.2.1b Landscape Sensitivity

The site of the existing pig farm, and site of the proposed development is not obtrusive in the surrounding landscape. The ground levels are as depicted in the site plans, sections and contour details as submitted with this application. A copy of same is contained in Appendix No. 3.

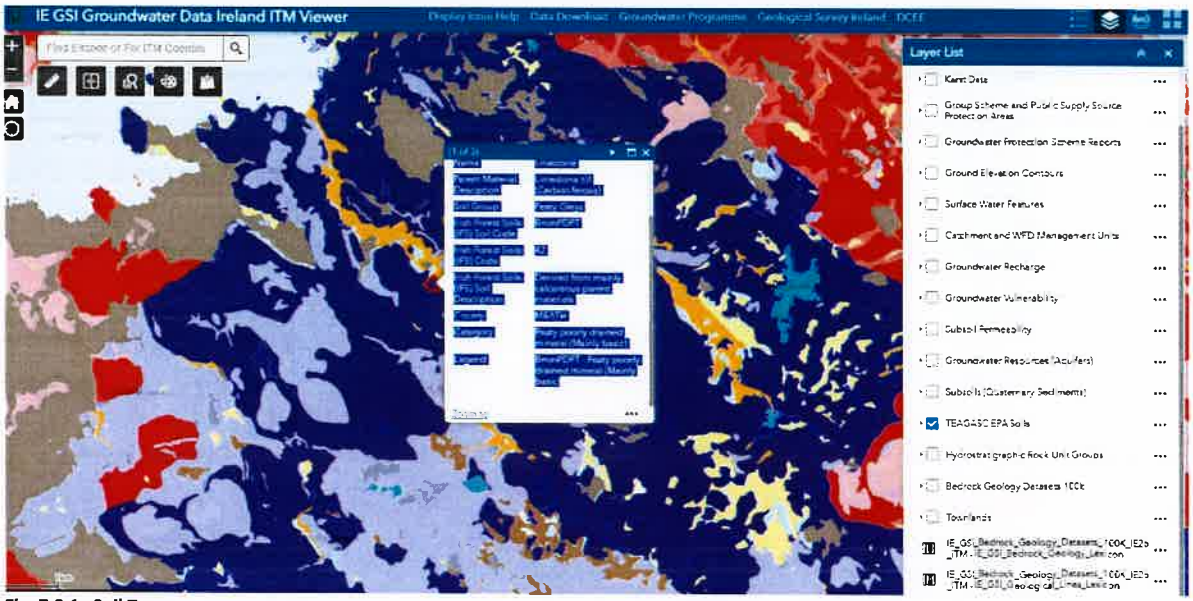


Fig. 7.2.1c Soil Type

The Bedrock geology of the site is referred to as undifferentiated limestone

Rock Unit Name	
NEWCODE	**CDVIS**
Rock Unit Name	**Visean Limestones (undifferentiated)**
Bedrock Geology 100k Sheet Number	**12**
Stratigraphic Code	**VIS**
Lithological Code	
Description	**Undifferentiated limestone**
Label	**VIS**

IE_GSI_Bedrock_Geology_Lexicon: Visean Limestones (undifferentiated)	
Lexicon Unique ID	693
Rock Unit Name	Visean Limestones (undifferentiated)
Rock Unit Code	VIS
Current status of Rock Unit Name	INFORMAL NAME 100
Bedrock Geology 100k Sheet Numbers	13 14
Rock Unit Definition Reference	
Type Section	
Rock Unit Contacts	
Lithology Description	
Lithology Summary	
Lithology	Undifferentiated limestone
Rock Type	Limestones
System	Carboniferous
Series	Dinantian
Stage	
Micropalaeontology Zone	
Comments	
Thickness of Rock Unit	
NEW_CODE	CDVIS

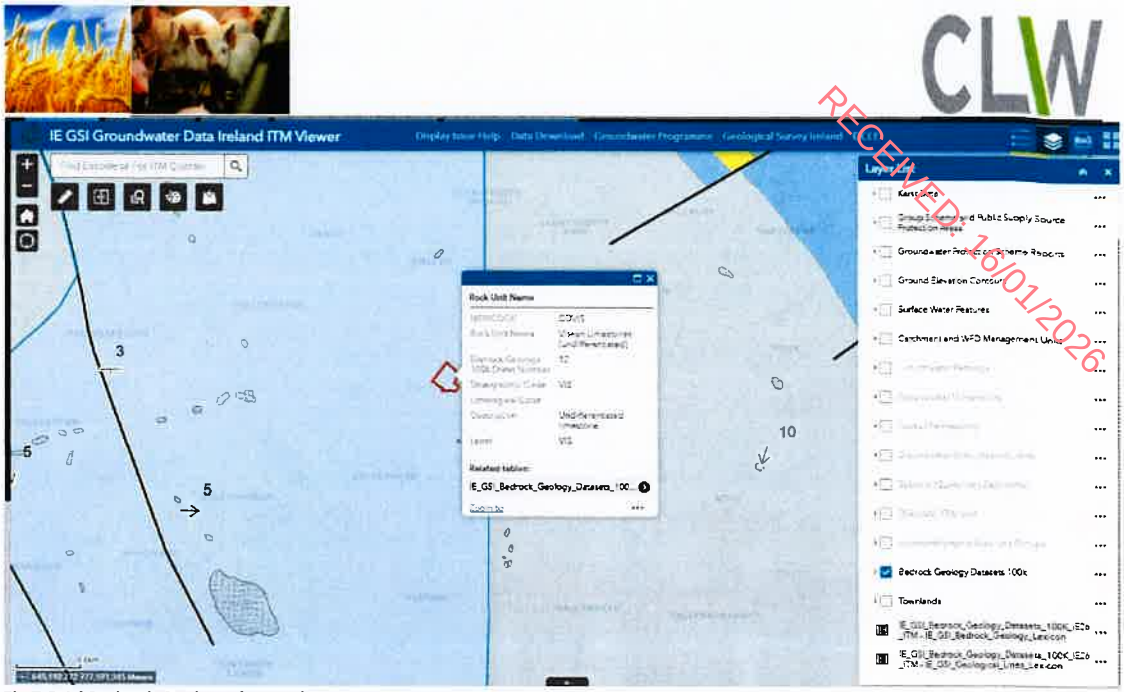


Fig 7.2.1d Bedrock Geology (Source)

Like most of the eastern region of Ireland, county Meath was subject to ice movements. Glacial drift deposits cover the bedrock with sediments of varying types and thickness. The quaternary deposits as they are referred to give the county its distinctive landscape. The till deposits have a major influence on soil type and aquifer vulnerability as the thick clay soils will provide aquifers with protection from surface pollution. Soils depth at the site of the proposed development has been confirmed to be in excess of 2.4m.
The deposits in the area of the existing and proposed development are referred to as:

Quaternary Sediment Type

Quaternary Sediment Type	Till derived from limestones
Quaternary Sediment Code	TLs
Legend Description	TLs, Till derived from limestones

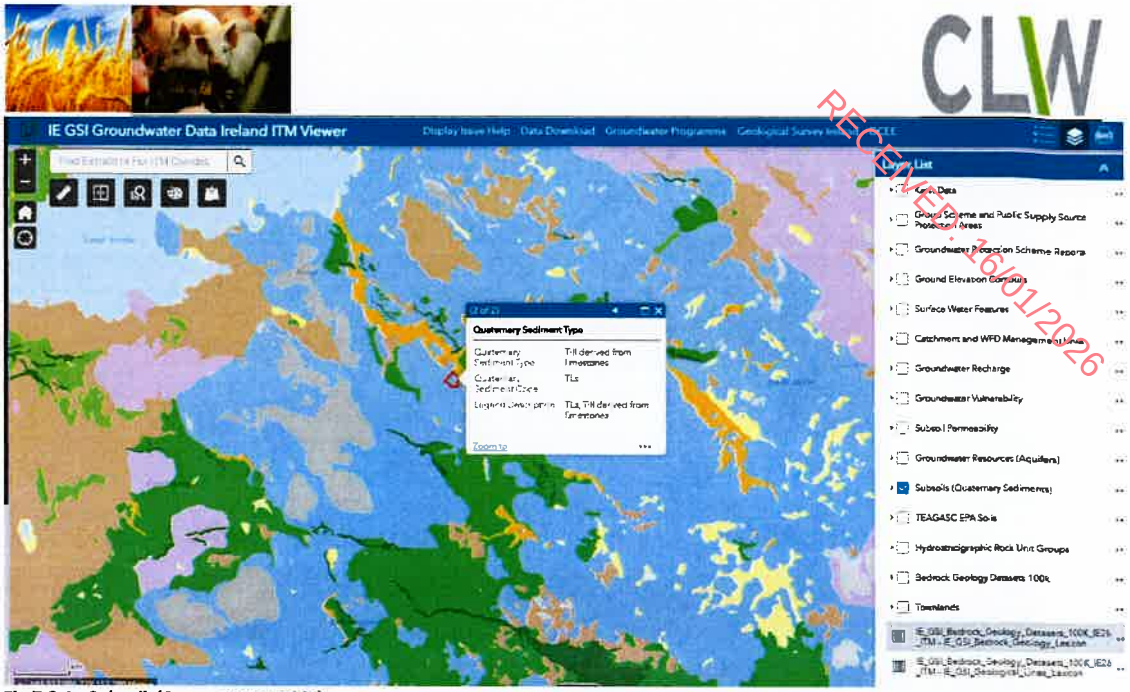


Fig 7.2.1e Subsoil (Source www.gsi.ie)

Please refer to;

- Appendix No. 18 for details relating to the landscape character assessment as contained in the county development plan.

(b) Proposed customer farmlands.

The customer farmland areas cover/will cover a significantly larger area than the site of interest, i.e. the site of the proposed development. As a result the topographic features and solid geology will be more varied and are deemed to be beyond both the scope and requirement of this E.I.A.R. The application of organic and inorganic fertilisers to these customer farmland areas will be governed by the requirements of the nitrates directive on each individual customer farmer, i.e. the requirement not to spread on steep slopes where there is a risk of pollution, the requirement not to spread on, or within 15 m of exposed bedrock and/or other vulnerable features, not to apply excess fertilisers etc.

Some notable features that could distinguish the site from the customer farmland areas will be, 1) the variability in the topography across the area from flat, to gently sloping to more steeply sloping, 2) the variability in soil type from one area to another, and, 3) the transition from one River Catchment area to another etc.

7.2.2 Soil Geology

(a) Site and immediate area

The existing ***pig farm site, and site of the proposed development*** is located in the area identified as soil association 31 on the General Soil Map of Ireland. Soil association 31 comprises Minimal Grey Brown Podzolics (80%), Gleys (10%), Brown earths (5%) and peat (5%). The more updated Teagasc Soil Maps detail deposits in the area of the existing and proposed development as:

Teagasc Soils

Soil Type:

Parent Material Code	TLs
Parent Material Name	Till derived chiefly from limestone
Parent Material Desciption	Limestone till (Carboniferous)
Soil Group	Peaty Gleys
Irish Forest Soils (IFS) Soil Code	BminPDPT
Irish Forest Soils (IFS) Code	42
Irish Forest Soils (IFS) Soil Description	Derived from mainly calcareous parent materials
County	MEATH
Category	Peaty poorly drained mineral (Mainly basic)
Legend	BminPDPT - Peaty poorly drained mineral (Mainly basic)

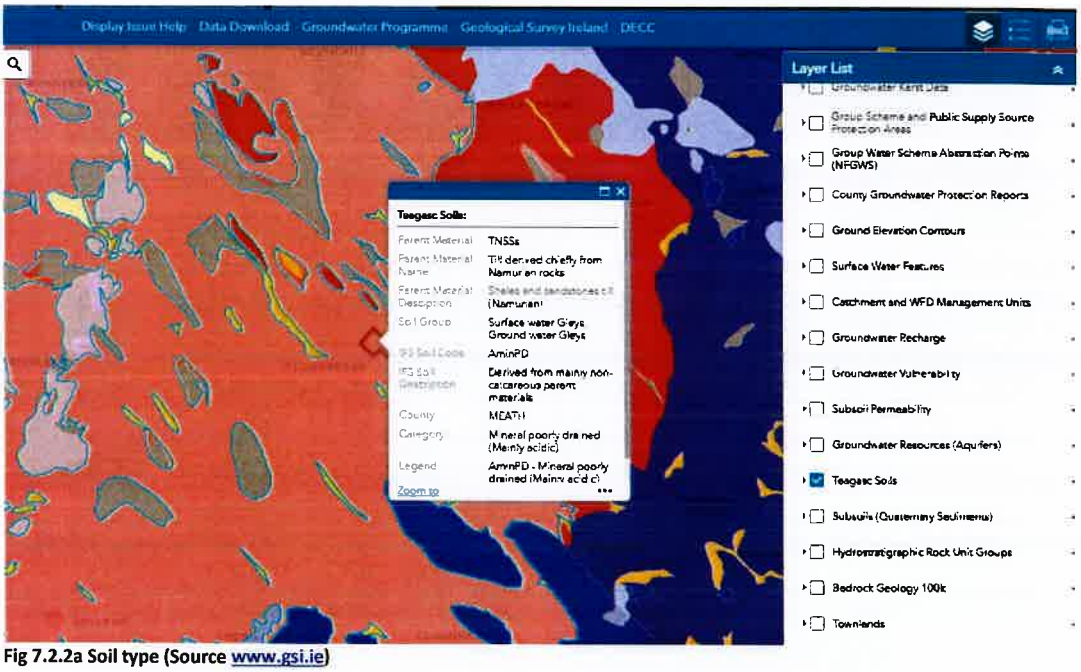


Fig 7.2.2a Soil type (Source www.gsi.ie)

(b) Proposed customer farmlands.

The customer farmland areas cover/will cover a significantly larger area than the site of interest, i.e. the site of the proposed development. As a result the soil geology will be more varied and are deemed to be beyond both the scope and requirement of this E.I.A.R. Due to the nature of the activities to be carried out on these farms, i.e. the application of organic fertilisers (from the proposed developments and other farms) and inorganic fertilisers (from the local co-op), the customer farmland areas will be governed by the requirements of the nitrates directive (S.I. 588 of 2025), i.e. the requirement not to spread on waterlogged, frozen, snow covered ground, not to apply excess fertilisers etc. thus protecting soils from chemical and hydraulic loading and other physical damage.

7.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Residual Effects

An analysis of the predicted/potential effects of the proposed pig development on the soils and geology of the site and surrounding environment during both the construction and operation of the facility are presented below.

(a) Site and Immediate area

Construction:

The proposed development will have a significant effect on the soil in the development area, given the nature of the site and the proposed works. At present the site (existing pig farm, part greenfield) is a gently sloping but can accommodate the proposed development. The site will require additional excavation, and levelling in preparation for the proposed development, with a significant proportion of the excavated soil to be used for site amelioration works, and/or within the applicants landholding. Site development activities will have no significant adverse environmental impact on the environment at large and no adverse impact outside of the site boundary, and thus there are no specific mitigation measures that can be carried out or are deemed to be required. There are no habitats, flora, fauna, protected sites and/or other notable sensitive/valuable features within the boundary of the proposed site that are deemed to require special protection. The material excavated from the site may well be used as part of the amelioration works to be carried out at, and/or, around the site/farm.

The proposed development will have a significant effect on the soil in the development area, given the nature of the site and the proposed works. At present the site (existing pig farm, part greenfield) is a gently sloping but can accommodate the proposed development. The site will require additional excavation, and levelling in preparation for the proposed development, with a significant proportion of the excavated soil to be used for site amelioration works, and/or within the applicants landholding. Site development activities will have no significant adverse environmental impact on the environment at large and no adverse impact outside of the site boundary, and thus there are no specific mitigation measures that can be carried out or are deemed to be required. There are no habitats, flora, fauna, protected sites and/or other notable sensitive/valuable features within the boundary of the proposed site that are deemed to require special protection, and the development of this area will not have a significant adverse impact on the local agricultural area. The material excavated from the site may well be used as part of the amelioration works to be carried out at, and/or, around the site/farm.

The general topography of the site/area has been detailed in Section 7.2.1. The finished floor level has been detailed so as to average out the ground levels on the site and ensure that all of the soil/subsoil can be accommodated and utilised within the site, while at the same time ensuring that the proposed development is integrated into the landscape. Please refer to the Site Plan contained in Appendix No. 2.

Operation:

(a) Site and Immediate area

The proposed developments have been designed so as to minimise the amount of soiled water generated on the farm with pigs only moved on slatted / concreted passageways with all soiled water diverted to manure storage tanks, thus ensuring all soiled water is collected and that there is no possibility of contaminated storm water entering the clean storm water discharge system. All potentially polluting liquids (fuels, disinfectants chemicals etc.) to be stored in an appropriately bunded area in line with E.P.A . Licence requirements.

In order to minimise emissions from the pig facility at Ballinrink and in order to protect the local environment, the following mitigation measures are to be implemented:

- The control and management of hydrocarbons on site will be vital to prevent adverse impact. The following measures must be employed on site during construction:
    - The risk of fuel spillages on a construction site is at its greatest when refuelling plant. Therefore, only designated trained and competent operatives should be authorised to refuel plant on site. Plant and equipment should be brought to a designated refuelling area rather than refuelling at numerous locations about the site.
    - Spill kits stations should be provided at the fuelling location for the duration of the works.
    - Workers should be provided with training on spill control and the use of spill kits.
    - All fuel storage containers must be appropriately bunded, roofed and protected from vehicle movements.
    - All chemicals must be stored as per manufacturer's instructions. A dedicated chemical bund should be provided on site if chemicals are to be stored on site. Any chemicals used on site should be returned to the site compound and secured in a lockable and sealed container overnight in proximity to the fuel storage area.
    - Procedures and contingency plans should be established on site to address cleaning up small spillages as well as dealing with an emergency incident. A stock of absorbent materials such as sand, spill granules, absorbent pads and booms should be kept on site, on plant working near the water and at the refuelling area.
    - Daily plant inspections will be completed by all plant operators on site to ensure that all plant is maintained in good working order. Where leaks are noted on these inspection sheets, the applicant should remove the plant from operations for repairs.
    - All personnel shall observe standard precautions for handling of materials as outlined in the Safety Data Sheets (SDS) for each material, including the use of PPE. Where conditions warrant, emergency spill containment supplies should be available for immediate use.

- Best practice concrete/aggregate management measures to be employed on site.
  - A designated concrete wash out area should be set up on site, typically this will involve washing the chutes, pumps into a designated IBC before removing the waste water off site for disposal.
  - Best practice in bulk-liquid concrete management should be employed on site addressing pouring and handling, secure shuttering, adequate curing times etc.
  - Stockpile areas for sands and gravel must be kept to a minimum size, well away from the coastal site boundary.
  - Where concrete shuttering is used, measures should be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils.
  - Activities which result in the creation of cement dust should be controlled by dampening down the areas.
  - Raw and uncured waste concrete should be disposed of by removal from the site;
  - Stockpile areas for sands and gravel must be kept to a minimum size.

- All silt drains and farm yard discharge should be in accordance with the specifications within the Department of Agriculture's "Minimum specification for Farmyard Drainage, Concrete Yards and Roads".

- Any excavated material arising from the construction process must not be disposed of within any designated site. It must be used responsibly within the landholding or disposed of in an approved facility using a registered contractor.

- Site preparation and construction must be confined to the development site only and should adhere to all standard best practice measures. Work areas should be kept to the minimum area required to carry out the proposed works and the area should be clearly marked out in advance of the proposed works.

- It is vital that there is no run-off from site works or operation into the tributary of the Inny River which lies close to the proposed construction works area. There should be no construction works within 10m of the watercourses on site and the existing natural vegetation along these watercourses should be maintained. Additionally, in order to prevent run off from construction works from entering the watercourses, a sturdy silt fence should be installed along the eastern perimeter of the construction works site. This should be done prior to any work commencing on the site.

- The existing and proposed operation of the farm should be done in accordance with S.I. 588 of 2025 having regards to the storage and use of the manure produced on the farm. Manure, slurry and soiled water storage facilities should be constructed to Department of Agriculture, Food and The Marine specifications.

- During operation only clean surface water should be discharged to this drain. Appropriate silt and hydrocarbon interceptors should be used on this line.

(b) Proposed customer farmlands

As detailed previously the customer farmlands are deemed to be beyond both the scope and requirement of this E.I.A.R., however it is worth noting the significant array of Good Practice measures (not considered mitigation for the purposes of this EIAR, as they are legally required by S.I. 588 of 2025) that apply to the management of organic fertiliser. Some of these measures as they apply to this chapter are detailed hereafter, however please refer to Appendix. No. 17 For a full copy of S.I. 588 of 2025 .

The customer farmland areas are eminently suitable for grass/crop production, and environmentally safe for the application of organic fertilisers at the levels permitted by, and in accordance with the requirements of S.I. 588 of 2025 .

All fertiliser from this pig farm is to be allocated for use in accordance with S.I. 588 of 2025 . All areas that are environmentally sensitive, as detailed in S.I. 588 of 2025 , will be removed and/or an adequate buffer-zone applied to them. The principal impacts on the soil arise from,

1. Hydraulic loading
2. Chemical loading
3. Soil Structure damage.

In relation to hydraulic loading, the maximum rate of application proposed at present is c. 40m^3 /ha. It is anticipated that there will be no surface run-off due to the omission of steeply sloping lands and strict adherence to the cordon sanitaires, application rates and ground and weather conditions at the time of application, as required by S.I. 588 of 2025 .

In relation to chemical loading of the soils, this development is promoting nutrient substitution rather than addition. The organic fertiliser from this farm will satisfy the growth requirements of the tillage/other crops as per the current practices. All organic fertiliser from this re-aligned pig farm will continue to be allocated for use in accordance with S.I. 588 of 2025 , thus avoiding over enrichment of the farmland areas with nutrients.

As part of the assessment of the requirement for organic fertiliser from the proposed development, it was determined that the customer farmers are in a position to fully utilise all organic fertiliser produced. The applicant farms a net area of c. 290 Ha tillage (wheat, barley, Potatoes etc.) and can utilise in excess of c. 200 % of the existing/proposed organic fertiliser, produced/to be produced, on this farm. This list will be updated on a continuous basis with additional existing/new customers and may include grassland and tillage lands.

All specific details in this regard will be completed and are maintained on site for inspection by authorised person(s) in line with the requirements of S.I. 588 of 2025 . These details will be updated on a regular basis to include any additional customers. In addition to the above the applicant has proposed manure storage facilities on site, which have the capacity for well in excess of the minimum 6 months storage in line with the requirements of S.I. 588 of 2025 . Customer farmers will also be advised that the application of organic fertiliser to farmland should not occur;

- In the period 1st Oct – 15th January, for lands in Zone B (incl. Co. Meath) Please refer to S.I. 588 of 2025 for details pertaining to other areas.
- When soils are waterlogged, and/or ground conditions are unsuitable.

These are the times of year when the majority of soil structure damage can occur, and are in line with the requirements of S.I. 588 of 2025 .

8 Water

8.1 Introduction:

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

8.2 Environmental Setting / Receiving Environment

8.2.1 Ground Water

(a) Site and immediate area

The groundwater adjacent to the site is overlain by a low permeability overburden. According to G.S.I. records the aquifer classification of the site of the site is referred to as a Regionally Important Aquifer, - Karsified, (RkD). This is a good aquifer and is capable of supplying regionally important supplies (e.g., large public water supplies). Rkd aquifers are generally capable of yielding excellent yields, with some wells exceeding 400 m3/d

GSI Bedrock AquiferRkd

AquiferCode	Rkd
AquiferDesc	Regionally Important Aquifer - Karstified (diffuse)

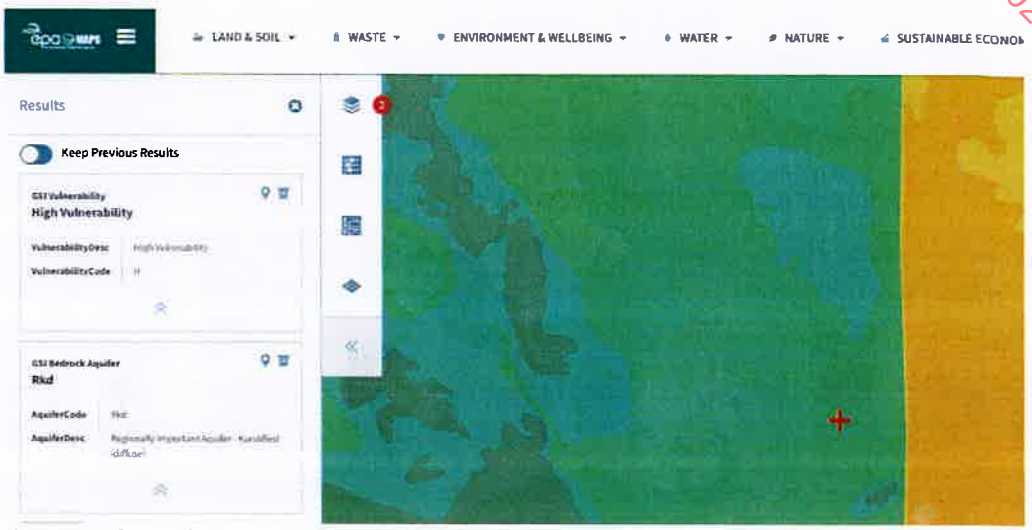


Fig 8.2.1 Aquifer type (Source www.epa.ie)

The aquifer vulnerability for the area of the existing and proposed development is classed as High (mid range in the scale from low to Extreme). As can be seen from the soil profile for the area concerned, any ground water sources in the area are afforded considerable protection due to the nature of the soils, and their associated characteristics. The applicant has not encountered rock as part of the site works associated with the existing development.

(b) Proposed customer farmlands.

Soils are the basic resource for the production of commercial food crops and rearing of livestock. In order to achieve the required crop/animal yield from soils additional fertiliser, such as the organic fertiliser from this farm, must be applied. All fertiliser from this farm is to be allocated for use in accordance with S.I. 588 of 2025 , the groundwater resources in the relevant areas will be afforded the required protection.

The proposed development will not alter the nature and extent of the activities carried out by the customer farmers and/or the amount of fertiliser nutrients spread on their lands. The proposed development will continue to provide an alternative fertiliser source (which will not increase in volume as a resulr of this currently proposed development) from which these customer farmers can continue to meet their existing fertiliser requirement, as they have done for the lifetime of this pig farm, and in line with fertiliser nutrients requirements as prescribed by SI 588 of 2025 .

8.2.2 Surface Water

(a) Site and immediate area

The application site is located within the Upper Shannon Hydrometric Area (26) and River Catchment (26F), and the Inny Sub-Catchment (010) and Sub-Basin (040). There is an open drain present at the north-western corner of the application site (approximately 58m west of proposed construction works). Clean surface water from the site is being directed to this drain. This drain connects via a small stream to the River Inny, which is 339m north of the application site. The River Inny flows in a north-westerly direction and it enters Lough Sheelin at a point 3.5km north-west of the application site.

The EPA have classed the ecological status of the Inny River and its tributaries at points close to the application site as moderate status. Lough Sheelin is also noted to be of moderate status. Under the requirements of the Water Framework Directive, this is unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027. Please refer to Appendix No. 10 for details on local river water quality data and associated information.

There is no historical evidence of flooding in the area.

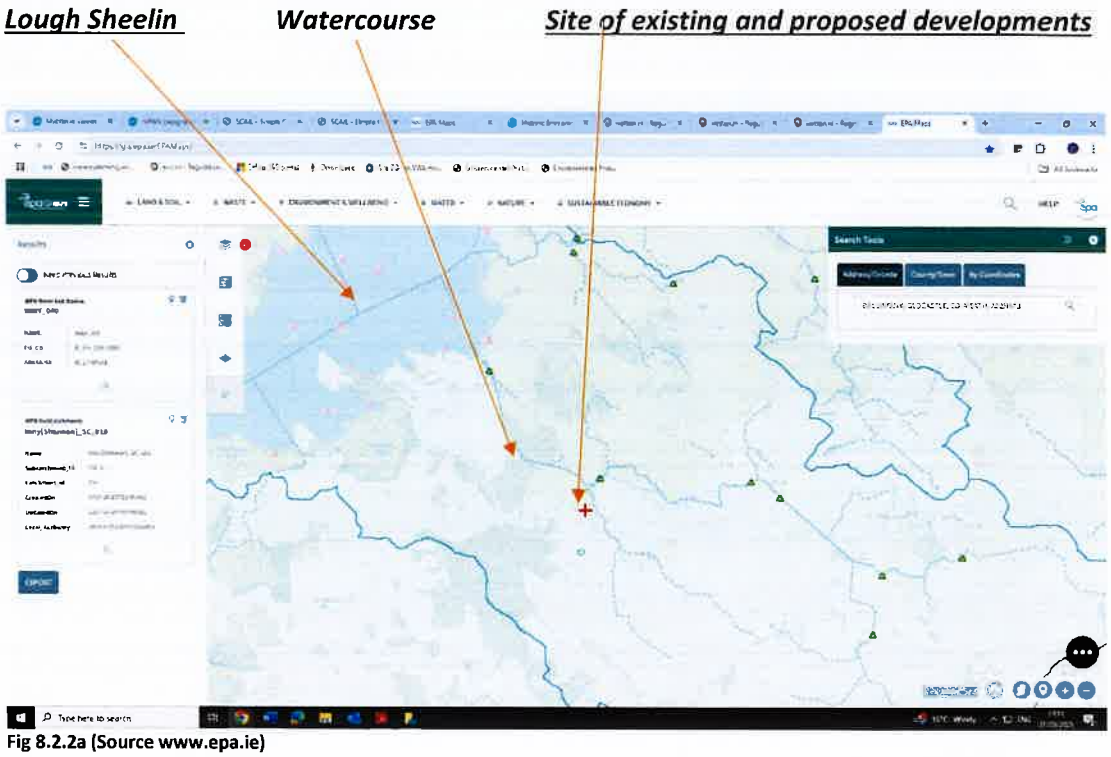
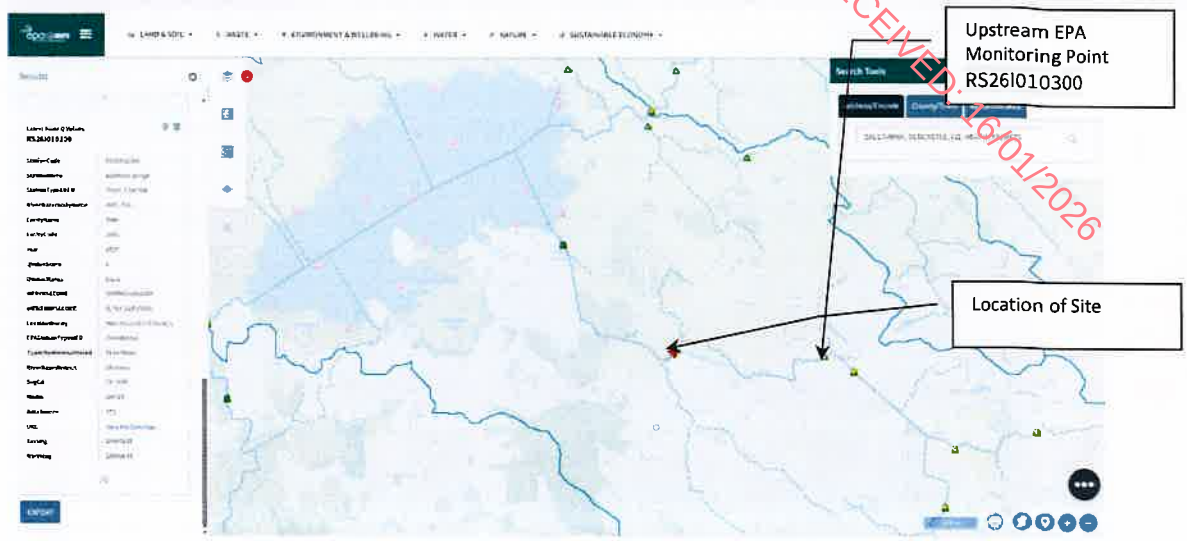


Fig 8.2.2a (Source www.epa.ie)



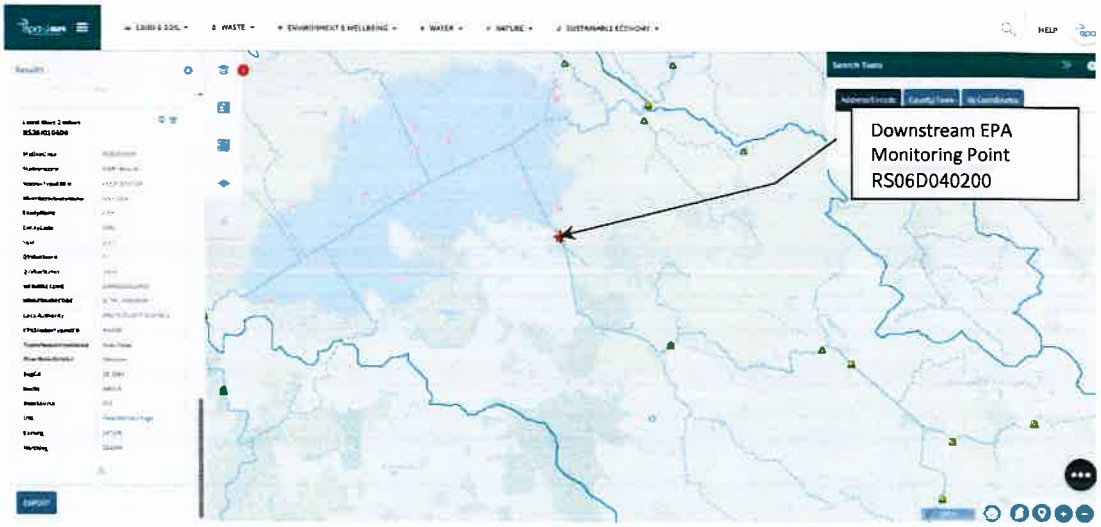


Figure 8.2.2 (b and c) – Location of upstream and downstream water quality monitoring sites (some of which may not be currently operational)
Source: www.epa.ie.

The protection and improvement of water quality in Ireland is to be co-ordinated on the basis of the areas known as river basin districts, established for the purposes of the EU Water Framework Directive (2000/60/EC). The Water Framework Directive, or WFD, came into force on 22 December 2000 and established a new, strengthened system for the protection and improvement of water quality and water-dependent ecosystems. It provides for co-ordinated water quality management based on natural river basins (i.e. catchments). It aims at preventing any deterioration in the status of any waters and at achieving at least "good status" for all waters.

River Basin Management Planning takes an integrated approach to the protection, improvement and sustainable management of the water environment. The planning process revolves around a six year planning cycle of action and review, so that every six years a revised river basin management plan is produced.

The status of waters will be determined by chemical and ecological criteria for surface waters and chemical and quantitative criteria for ground waters. It requires the carrying out of numerous preparatory tasks and their implementation, review and updating on a six-year cycle. The 3rd Cycle referred to as Water Action Plan 2024, was issued in September 2024.

Access to sufficient, clean water is essential for human life and is the foundation of all urban and rural society. Ireland has abundant natural water resources. Nevertheless, freshwater for human use is a relatively scarce and limited resource that needs protection. Well-managed and protected water catchments provide vital public goods: reliable, clean water to drink; sanitation; protection against flooding; support for biodiverse ecosystems and climate mitigation. Protecting water is a multifaceted problem and so needs a holistic management approach where all stakeholders are involved. This third-cycle plan sets out how Ireland will manage its water resources and catchments up to 2027.

A Water Action Plan for Ireland The Water Action Plan 2024 is Ireland's third River Basin Management Plan and it outlines the measures the Government and other sectors are taking to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters, and provide sustainable management of our water resources (as specified under SDG 6). This Water Action Plan enhances and builds upon the work of the first and second-cycle plans. Where necessary, this plan addresses the shortcomings experienced during the implementation of previous plans. The responses to shortcomings addressed include, for example, strengthening the incorporation of the integrated catchment management approach, improving the environmental ambition, improving the evidence base for 'targeting the right measures in the right place' and securing dedicated resources to deliver these, increasing environmental enforcement and compliance, and strengthening the governance structures. The Environmental Protection Agency ('EPA') reports that water quality in Ireland has made some improvements but these are being offset by declines in water quality elsewhere. Just over half of surface waters (rivers, lakes, estuaries and coastal waters) are in satisfactory condition (that is they are achieving good or better ecological status).

Meeting the challenge of protecting and improving Ireland's water quality will continue to be a complex undertaking. There is also a significant challenge in cross-sectoral coordination. Close coordination is needed to identify and exploit any potential opportunity and co-benefits for mitigating and adapting to climate change as well as for biodiversity protection. In this cycle there will be an emphasis on collective efforts and space given to collaborative activities to encourage collaboration and coordination through the governance structures.

Building on the work of the second-cycle River Basin Management Plan, this plan will again describe the main pressures and activities affecting water status and set out the

environmental objectives to be achieved up to 2027 and identify the measures needed to achieve these objectives. Implementing these policies and measures will require ongoing collaborative participation of stakeholders at national, regional, sectoral and community levels.

Water Classification System and Beneficial Uses

Table 6.1.3b: System of Water Quality Classification		
Biotic Index Classification	**Quality Status**	
Q5, Q4-5, Q4	Unpolluted Waters	A
Q3-4	Slightly Polluted Waters	B
Q3, Q2-3	Moderately Polluted Waters	C
Q2, Q2-1, Q1	Seriously Polluted Waters	D

Unpolluted Waters Class A	High quality waters suitable for supply and abstraction. Game fisheries and high amenity value. (Satisfactory)
Slightly Polluted Waters Class B	Usually good game fisheries. Suitable for supply. Moderate to high amenity value. (Transitional)
Moderately Polluted Waters Class C	Coarse fisheries. Not likely to support a healthy game fishery. Suitable for supply after advanced treatment. (Unsatisfactory)
Seriously Polluted Waters Class D	Fish absent or only sporadically present. May be used for low grade industrial abstraction. Low amenity value. (Unsatisfactory)

Figure 4: Map of Ireland's River Basin District

Fig. 8.2.2d Irelands River Basin Districts

(b) Customer farmlands.

Soils are the basic resource for the production of commercial food crops and rearing of livestock. In order to achieve the required crop/animal yield from soils additional fertiliser, such as the organic fertiliser from this farm, must be applied. This organic fertiliser will continue to replace imported chemical fertiliser that would otherwise have to be used. As all fertiliser from this farm is to be allocated for use in accordance with S.I. 588 of 2025, the surface water resources in the relevant areas will be afforded the required protection. The customer farmlands that will potentially utilise organic fertiliser from this farm have been farmed well with due care to waterways, spreading rates and nutrient requirements. This will continue in line with the requirements of S.I. 588 of 2025 .

Surface water quality in the area of the customer farmers lands where organic fertiliser from this pig house is / will be used, (be that in County Meath and/or further a field) will not be affected as the organic fertiliser will replace chemical fertiliser that would otherwise have to be used and all organic fertiliser is to be allocated for use, as part of a fertiliser substitution programme to replace imported chemical fertiliser with local organic fertiliser, in accordance with the Nitrates directive, S.I. 588 of 2025 . The proposed development will not provide for any increase in organic fertiliser production, and the applicant has demonstrated significant capacity within the currently proposed customer base in accordance with S.I. 588 of 2025 , to accommodate the increase in organic fertiliser to be produced.

As previously indicated the site of the proposed development is located in the catchment of the Inny River. Please refer to Appendix 10 for details relating to water quality in the area of the proposed pig house.

- **Lake Water Quality**

As previously indicated this existing pig farm, and the site of the proposed development is located in the Inny River River catchment area. The site of the existing and proposed farm is drained by tributaries of the Upper Inny River which in turn is a tributary of Lough Sheelin.

There are three hundred and nineteen lakes in total in County Cavan each with their own individual ecology. Cavan County Council monitors eight lakes on a monthly basis. These eight lakes are those assigned a baseline trophic status in the E.P.A.'s "1995 – 1997 Water Quality in Ireland" report. Previous, monitoring results indicate that all eight lakes are subject to eutrophication of some degree.

This pig farm is located in the catchment area of Lough Sheelin.

Lake Water Quality 2007-2009Sheelin (Lough)

NAME	Sheelin (Lough)
Segment_Code	26_709
Area	18.082
Hydro_Area	26
SamplingYear	2009
SurfaceArea	1808.2244
SamplingAgency	EPA/IFI
TROPHICSTATUS	m-E
ECOLOGICALSTATUS	M
BeneficialUses	Game and Coarse Fishery

- **Beneficial uses of surface waters in the Catchment Areas.**

Beneficial uses may be defined as activities, which are dependent on the river/lake for their existence. These include,

1. Water extraction for, Drinking, Process, Irrigation
2. Fisheries
3. Recreation and Water sports
4. Receiving waters for waste water discharges.

Water may be abstracted by both public and private bodies for drinking water and industrial use.

8.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Residual Effects

An analysis of the predicted/potential effects of the proposed pig development on the hydrology (ground and surface water) of the site and surrounding environment during both the construction and operation of the facility are presented below.

8.3.1 Ground Water

(a) Site and Immediate area

As previously stated the groundwater adjacent to the site is overlain by a low permeability overburden. According to G.S.I. records the aquifer classification of the site is referred to as a Regionally Important Aquifer - Karsified, Bedrock. The aquifer vulnerability for the area of the existing and proposed development is classed as High.

With any intensive agricultural enterprise one of the main areas of consideration arises from the storage and management of a relatively large volume of animal/pig manures. In order to ensure that the proposed development does not impact on the groundwater adjacent to the pig farm site the following measures, as may be amended /complemented by any additional measures as detailed in the NIS, will be implemented.

- All manure storage tanks to be completed in line with DAFM specifications. Leak detection facilities to be included under all new manure storage tanks.

- Manure storage facilities significantly in excess of the minimum requirements prescribed by S.I. 588 of 2025 to be provided. No increase in organic fertiliser production as a result of the proposed development and significant excess manure storage facilities to be put in place.

- All roof water and uncontaminated storm water will discharge, to the local water course/storm water drainage system via the stormwater swale attenuation drainage system. These discharge point(s) will be visually inspected on a weekly basis for any signs of contamination i.e. visual and or odour.

- The proposed developments have been designed so as to minimise the amount of soiled water generated on the farm. The area associated with the movement of pigs will be concreted/slatted. All movement of stock between the houses will be on slatted/concreted passageways with soiled water collected in manure storage tanks underneath (slatted passageways) or permanently diverted to a manure storage tank (concreted passageways) thus preventing the generation of soiled water outside the houses.

  Any soiled water will from the washing of houses will be collected in manure storage tanks underneath, ensuring all soiled water is collected with, and treated as, organic fertiliser and that there is no possibility of contaminated storm water entering the clean storm water discharge system.

- All soiled water to be drained to manure storage tanks and treated as organic fertiliser.

- All potentially polluting liquids (fuels, disinfectants chemicals etc.) to be stored in an appropriately bunded area in line with Bord Bia requirements.

- Staff facilities are to be provided on site and an appropriate site characterisation assessment and proposals have been completed in respect of same in line with the E.P.A. Code of Practice. (See Appendix No.15).

Proposed Average daily water usage (Cumulative of existing and proposed developments) =c. 25-30 m^3. The existing/proposed development is located in an area identified as a Regionally Important Aquifer (RkD). Reference to GSI information (See Fig. 8.3.1) details that "Regionally Important Aquifer (RkD) aquifers would generally have 'excellent' well yields – 400-500 m^3/d. This taken together with the low volumes required will ensure that the extraction of ground water for the proposed development , is well below the anticipated yield and will not cause an adverse impact of adversely impact ground water resources in the area.

Aquifer Category (see over for codes)	T values (m^2/day)	Productivity	Borehole Yields	Potential extent of flow systems	Large springs	Lithology			Structure	Surface water discharge zones in areas of thin or free draining subsoil.	Annual fluctuation in water levels
						Type	Dolomitic	Karst features			
Rf	Most >50. Several >500	Mostly I & II	Excellent yields very common	Regional	Potentially	Thin bedded sandstones, limestones volcanics	Potentially	Little or none	Volcanics and thick bedded limestones generally highly fractured	Lowland drainage density < 0.5 km/km²	Generally <10m
Rk_d	Variable. A few >500	Mostly I & II but fair proportion may be lower	Excellent yields very common	Regional	Potentially	Pure or dolomitic limestones	Potentially	Abundant	Thick bedded limestones generally highly fractured	Annual baseflow > 60% annual river flow.	Generally <15m
Rk_l	Variable. A few >500	Probably all classes, average may be III	Extremely variable	Regional	Potentially	Pure limestones	Potentially	Abundant	Thick bedded limestones generally highly fractured	Low flows > 1 l/sec/km² and low flows > 20% average flows (Rk_d may have lower low flows).	Often > 15m
Lm	Some >50. A few >500	Average III	Excellent yields very common	Regional to local	Potentially	Pure limestones, thin-bedded sandstones, volcanics	Potentially	Occasional	Volcanics and thick bedded limestones generally highly fractured		No criteria
Lk	As for Rk_l or Rk_d	As for Rk_l or Rk_d	As for Rk_l or Rk_d	Local	No	As for Rk_l or Rk_d	As for Rk_l or Rk_d	As for Rk_l or Rk_d	As for Rk_l or Rk_d	No criteria	As for Rk_l or Rk_d
Ll	Some >50. A few >500	Average III - IV, some II	Some excellent yields	Local (occasionally longer along fault zones)	Perhaps but unusual	Impure limestones, sandstones, shales, others	Perhaps, but not extensive	Occasional (in limestones)	No criteria	High drainage density, low baseflows	No criteria
Pl	Most <50. One or two >500	Mostly V & IV, some III	Excellent yields very rare if any	Local	No	Impure limestones, sandstones, shales, others	No	None	No criteria	Values will be complicated by upland climatic setting and steep slopes.	No criteria
Pu	<50	Mostly V & IV	No excellent yields. Good yields rare if any	Very localised	No	Impure limestones, sandstones, shales, others	No	None	No criteria		No criteria

Fig. 8.3.1 Source www.gsi.ie

(b) Proposed customer farmlands.

As detailed previously the customer farmlands are deemed to be beyond both the scope and requirement of this E.I.A.R., however it is worth noting the significant array of Good Practice measures (not considered mitigation for the purposes of this EIAR, as they legally required by S.I. 588 of 2025) that apply to the management of organic fertiliser. Some of these measures as they apply to this chapter are detailed hereafter, however please refer to Appendix. No. 17 For a full copy of S.I. 588 of 2025 .

All organic fertiliser / soiled water from this farm is to be allocated for use in accordance with S.I. 588 of 2025 . This legislation which is applicable to all farmers in the country with regard to the application of all organic and inorganic fertiliser (incl. soiled water) places certain requirements on farmers, including the applicant / customer farmers, with regard to the application of fertilisers to farmland. The measures referred to in this directive include, but are not limited to the following,

- Maximum limits with regard to the application of organic and inorganic fertilisers, thus ensuring that there is no leaching of nutrients through the soil.

- Organic fertiliser shall not be applied to land within 200m, or such other distance as may be specified by the local authority, of any borehole, spring or well used for the abstraction of water for human consumption in a scheme supplying 100m^3 or more of water per day or serving 500 or more persons.

- Organic fertiliser shall not be applied to land within 100m, or such other distance as may be specified by the local authority, of any borehole, spring or well used for the abstraction of water for human consumption in a scheme supplying 10m^3 or more of water per day or serving 50 or more persons.

- Organic fertiliser shall not be applied to land within 25m, or such other distance as may be specified by the local authority, of any borehole, spring or well used for the abstraction of water for human consumption not referred to at b and c above.

- Organic fertiliser shall not be applied to land within 15m, of exposed cavernous of karsified limestone features (such as swallow holes and collapse features).

- Organic fertiliser shall not be applied to land within the prohibited periods as applicable.

Proper manure management on the site and on the customer farmlands as planned will result in little or no impact on the ground water in this area. Bogue Pigs Unlimited Company will ensure that both they and any potential customer farmers are aware of the requirements of the nitrates directive with regard to the application of organic fertiliser to their farmland.

Proper management on the site by the applicant, and, by the applicant's customer farmers in line with S.I. 588 of 2025 , as planned will result in little or no impact on the ground water in this area. Bogue Pigs Unlimited Company will ensure that both they and any potential customer farmers are aware of the requirements of the nitrates directive with regard to the application of organic fertiliser to their farmland.

8.3.2 Surface Water

Ireland is fortunate in having a relatively abundant supply of fresh water, which constitutes a key resource in economic, amenity and aesthetic terms. The principle legislation governing water quality in Ireland is the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003) (as amended), which transposed directive 2000/60/EC (the water framework Directive, WFD) into Irish Law.

(a) Site and Immediate area

The application site is located within the Upper Shannon Hydrometric Area (26) and River Catchment (26F), and the Inny Sub-Catchment (010) and Sub-Basin (040). There is an open drain present at the north-western corner of the application site (approximately 58m west of proposed construction works). Clean surface water from the site is being directed to this drain. This drain connects via a small stream to the River Inny, which is 339m north of the application site. The River Inny flows in a north-westerly direction and it enters Lough Sheelin at a point 3.5km north-west of the application site.

The EPA have classed the ecological status of the Inny River and its tributaries at points close to the application site as moderate status. Lough Sheelin is also noted to be of moderate status. Under the requirements of the Water Framework Directive, this is unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027.

As previously stated, all surface water from this farm will discharge through a dedicated stormwater swale drainage attenuation system and one (or more) storm water discharge points;

- All roof water and uncontaminated storm water will discharge, to the local water course/storm water drainage system via the stormwater swale attenuation drainage system. These discharge point(s) will be visually inspected on a weekly basis for any signs of contamination i.e. visual and or odour, and sampled for B.O.D. Quarterly.

- The proposed developments have been designed so as to minimise the amount of soiled water generated on the farm. The area associated with the movement of pigs will be concreted/slatted and ensuring all soiled water is collected with, and treated as, organic fertiliser and that there is no possibility of contaminated storm water entering the clean storm water discharge system.

- All potentially polluting liquids (fuels, disinfectants chemicals etc.) to be stored in an appropriately bunded area in line with Bord Bia requirements.

- The requirements of Condition No. 5, 6, 8, 9 and 10 of Planning ref: 24/60324 granted by Meath Co. Co. 08/01/2025 as have been revised to address the alterations to the proposed development in this application, or as may be otherwise agreed with Meath Co. Co. as part of this application to be complied with.

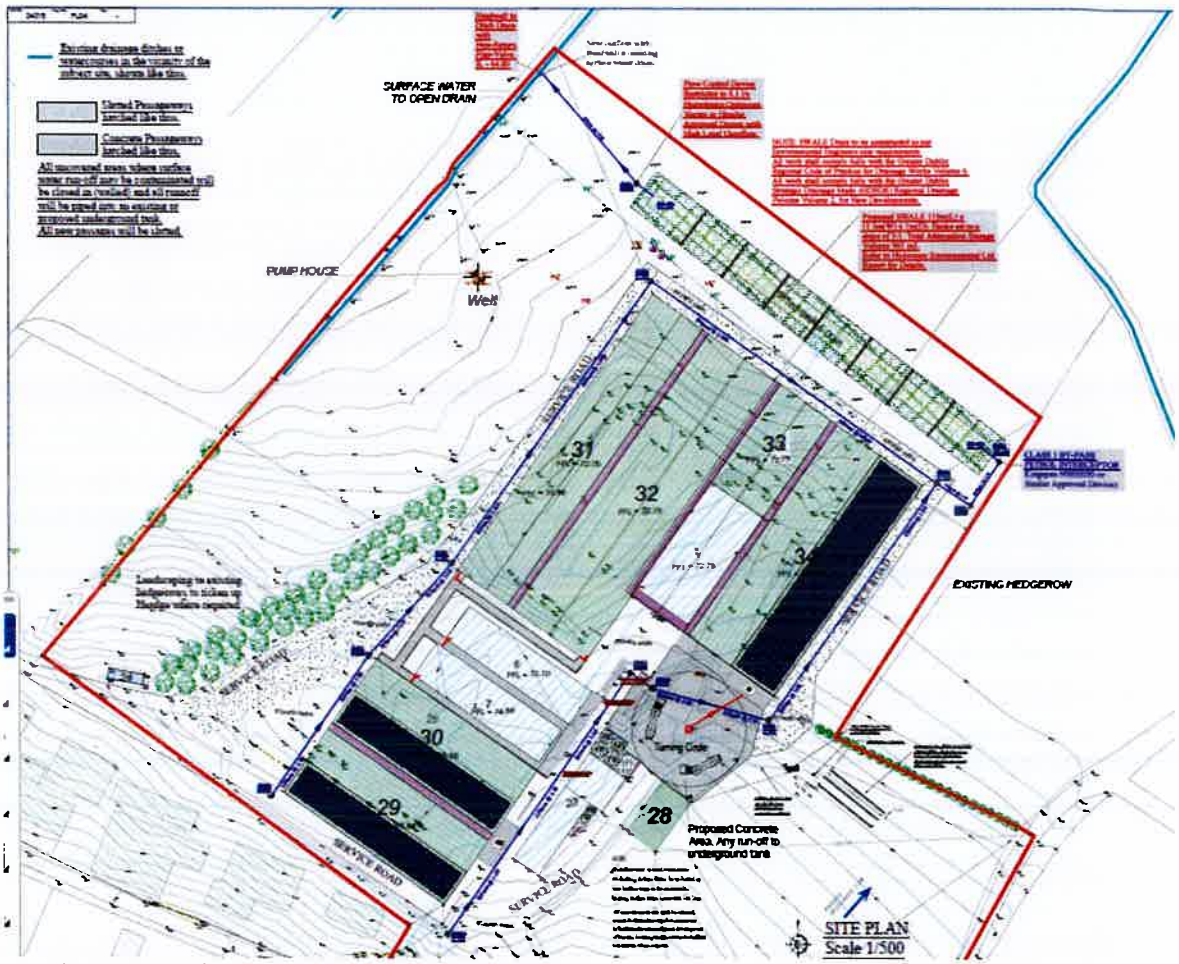


Fig: 8.3.2 a Site Plan section detailing proposed attenuation

- The proposed developments have been designed so as to minimise the amount of soiled water generated on the farm with all soiled water diverted to the organic fertiliser storage tanks, thus ensuring all soiled water is collected and that there is no possibility of contaminated storm water entering the clean storm water discharge system.

- All potentially polluting liquids (fuels, disinfectants chemicals etc.) to be stored in an appropriately bunded area in line with E.P.A . Licence requirements.

In order to ensure that the proposed development does not impact on the environment / surface water adjacent to the pig farm site the following measures, as may be amended /complemented by any additional measures as detailed in the NIS, will be implemented.

- The control and management of hydrocarbons on site will be vital to prevent deteriorations in surface and groundwater quality locally. The following measures must be employed on site during construction:
    - The risk of fuel spillages on a construction site is at its greatest when refuelling plant. Therefore, only designated trained and competent operatives should be authorised to refuel plant on site. Plant and equipment should be brought to a designated refuelling area rather than refuelling at numerous locations about the site.
    - Spill kits stations should be provided at the fuelling location for the duration of the works.
    - Workers should be provided with training on spill control and the use of spill kits.
    - All fuel storage containers must be appropriately bunded, roofed and protected from vehicle movements.
    - All chemicals must be stored as per manufacturer's instructions. A dedicated chemical bund should be provided on site if chemicals are to be stored on site. Any chemicals used on site should be returned to the site compound and secured in a lockable and sealed container overnight in proximity to the fuel storage area.
    - Procedures and contingency plans should be established on site to address cleaning up small spillages as well as dealing with an emergency incident. A stock of absorbent materials such as sand, spill granules, absorbent pads and booms should be kept on site, on plant working near the water and at the refuelling area.
    - Daily plant inspections will be completed by all plant operators on site to ensure that all plant is maintained in good working order. Where leaks are noted on these inspection sheets, the applicant should remove the plant from operations for repairs.
    - All personnel shall observe standard precautions for handling of materials as outlined in the Safety Data Sheets (SDS) for each material, including the use of PPE. Where conditions warrant, emergency spill containment supplies should be available for immediate use.

- Best practice concrete/aggregate management measures to be employed on site.
    - A designated concrete wash out area should be set up on site; typically this will involve washing the chutes, pumps into a designated IBC before removing the waste water off site for disposal.
    - Best practice in bulk-liquid concrete management should be employed on site addressing pouring and handling, secure shuttering, adequate curing times etc.
    - Stockpile areas for sands and gravel must be kept to a minimum size, well away from the coastal site boundary.

- Where concrete shuttering is used, measures should be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils.
- Activities which result in the creation of cement dust should be controlled by dampening down the areas.
- Raw and uncured waste concrete should be disposed of by removal from the site;
- Stockpile areas for sands and gravel must be kept to a minimum size.

- All silt drains and farm yard discharge should be in accordance with the specifications within the Department of Agriculture's "Minimum specification for Farmyard Drainage, Concrete Yards and Roads".

- Any excavated material arising from the construction process must not be disposed of within any designated site. It must be used responsibly within the landholding or disposed of in an approved facility using a registered contractor.

- Site preparation and construction must be confined to the development site only and should adhere to all standard best practice measures. Work areas should be kept to the minimum area required to carry out the proposed works and the area should be clearly marked out in advance of the proposed works.

- It is vital that there is no run-off from site works or operation into the tributary of the Inny River which lies close to the proposed construction works area. There should be no construction works within 10m of the watercourses on site and the existing natural vegetation along these watercourses should be maintained. Additionally, in order to prevent run off from construction works from entering the watercourses, a sturdy silt fence should be installed along the eastern perimeter of the construction works site. This should be done prior to any work commencing on the site.

- The existing and proposed operation of the farm should be done in accordance with S.I. 588 of 2025 having regards to the storage and use of the manure produced on the farm. Manure, slurry and soiled water storage facilities should be constructed to Department of Agriculture, Food and The Marine specifications.

- During operation only clean surface water should be discharged to this drain. Appropriate silt and hydrocarbon interceptors should be used on this line.

(a) Proposed customer farmlands.

As detailed previously the customer farmlands are deemed to be beyond both the scope and requirement of this E.I.A.R., however it is worth noting the significant array of Good Practice measures (not considered mitigation for the purposes of this EIAR, as they legally required by S.I. 588 of 2025) that apply to the management of organic fertiliser. Some of these measures as they apply to this chapter are detailed hereafter, however please refer to Appendix. No. 17 For a full copy of S.I. 588 of 2025 .

All organic fertiliser / soiled water from this farm is to be allocated for use in accordance with S.I. 588 of 2025 . This legislation which is applicable to all farmers in the country with regard to the application of all organic and inorganic fertiliser (incl. pig manure and soiled water) places certain requirements on farmers with regard to the application of fertilisers to farmland.

The measures referred to in this directive include, but are not limited to the following,

- Maximum limits with regard to the application of organic and inorganic fertiliser / soiled water, thus ensuring that there is no overland flow of nutrients.
- All fertiliser to be applied in a uniform manner ensuring an even spread.
- Organic fertiliser / soiled water shall not be applied to land that is waterlogged, flooded or likely to flood, snow covered or frozen, when heavy rain is forecast within 48 hours, or, where the ground slopes steeply and taking into account factors such as proximity to waters, soil condition, ground cover and rainfall, there is a significant risk of causing water pollution.
- Organic fertiliser / soiled water shall not be applied by the use of an upward facing splash plate or a rain gun.
- Organic fertiliser / soiled water shall not be applied within 20 m of a lake shoreline.
- Organic fertiliser / soiled water shall not be applied within 5 m of a surface watercourse.
- Organic fertiliser / soiled water shall not be applied to land within the prohibited periods as applicable.

Proper manure management on the site and on the customer farmlands as planned will result in little or no impact on the surface water in this area. Bogue Pigs Unlimited Company will ensure that both they and all potential customer farmers are aware of the requirements of the nitrates directive with regard to the application of organic fertiliser to their farmland. As previously detailed the proposed development will not result in any increase in organic fertiliser production on this farm, and /or any increase in the volume of organic fertiliser available to the customer farmers.

Independent water monitoring in this catchment is and it is envisaged will be conducted on an on-going basis by Meath Council, the E.P.A. and the Regional Fisheries Board(s). Results relating to surface water quality for the relevant watercourses associated with the existing/proposed pig farm site are detailed in Appendix 10.

9. Climate / Air

9.1 Introduction

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

According to the Koppen Climate Classification System, Ireland's climate is defined as a temperate oceanic cimate (Cfb), which can be described as being mild, moist and changeable with abundant rainfall and a lack of temperature extremes. Climatic parameters such as wind and rain can have a serious effect on the magnitude of environmental impact arising from agricultural developments.

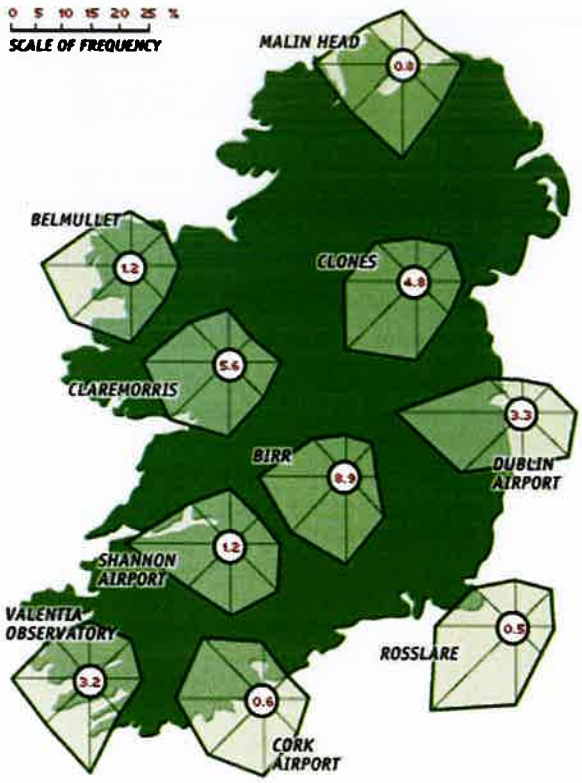
The sites of the existing, and proposed, pig houses, are/are to be, located in an agricultural hinterland where typical levels of farm odour/activity are to be found and expected. This odour arises from farmyards and lands during the day to day operations such as silage feeding, manure agitation and manure spreading.

(a) Climate

Climate information is useful for predicting the likely impacts that the farm operation and the application of manure in the area will have upon the residents. Details of annual rainfall and wind direction can be found in Appendix 12 and Figure 6.5. Wind direction at the site is critical to odour movements and rainfall is critical factor in the application of manure. The wind direction is from the west/south west. The rainfall levels are low, the annual rainfall for Clones Station is on average 960mm. The applicant will ensure that manure is allocated for use only at times that is acceptable to the inhabitants of the catchment, and the regulatory authorities, i.e. Local Authority and the Department of Agriculture.

The prevailing wind in the Meath area (Clones and Dublin weather station, which are the closest to the proposed development) is from the southwest-west. Rainfall in the area of the site/Proposed customer farmlands. a c. 758 mm, (1981 – 2010 average for Dublin airport).

Figure 9.2.1 Prevailing Wind Direction.



Large livestock populations and nitrogen inputs to soil generate 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 pig/pigs. This is as a result of the different digestive systems.

As can be seen from the Fig. 9.2 below, the GHG emissions from mono-gastric animals such as pigs and pig is significantly less than ruminants, albeit that a majority of the GHG from ruminant agriculture (i.e. CH4) is eventually absorbed by plants etc. to be eaten by ruminants to carry on the cycle (Carbon Cycle).

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.

Growing concerns about climate change and policy initiatives aimed at reducing agriculture's contribution to greenhouse gas emissions have drawn increased attention to the carbon footprint of food production globally.

The carbon footprint of a food product is the measure of total greenhouse gas (GHG) emissions caused by production and/or consumption of the food product, expressed as carbon dioxide equivalent, which reflects its global warming potential. Carbon footprints are generally measured using Life-Cycle Assessment (LCA) which estimates the emissions and resource use, from the very beginning of the production process (e.g. growing and milling of animal feed) through to the manufacture, use and disposal of food. Globally, agriculture is directly responsible for about a quarter of all GHG emissions and these are dominated by nitrous oxide from fertilised soils and methane from farm animals. The size of the carbon foot print associated with each food type depends on the volume of methane emitted by the animal, the level of fertiliser used in the production system, and the burning of fossil fuels in the manufacture or transport of the food product.

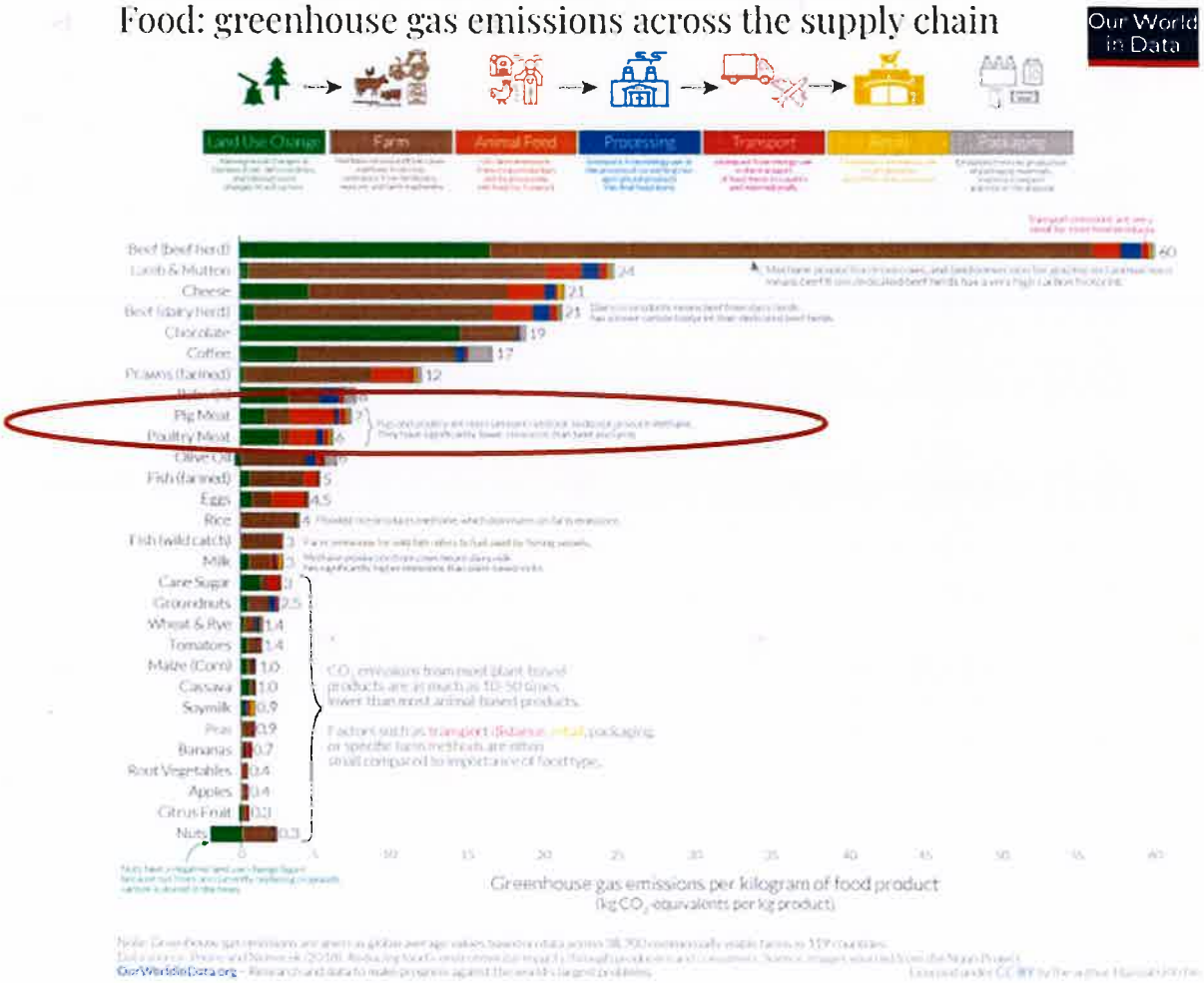
Numerous studies have developed measures of the carbon footprint of various food stuffs. For example, the extract from Our World in Data presents estimates of the greenhouse gas emissions of various food stuffs and the sources of those emissions. The data in Figure 16 is from the largest meta-analysis of global food systems to date, collected from 38,000 commercial farms across 119 countries, Poore and Nemecek (2018).

There are significant differences in the GHG emissions of different foods. For most foods GHG emissions result from land use change, and from processes at the farm stage. Farm-stage emissions include processes such as the application of fertilisers – both organic and synthetic; and enteric fermentation (the production of methane in the stomachs of cattle). Combined, land use and farm stage emissions account for more than 80% of the footprint for most foods. For most foods, processes in the supply chain after the food leaves the farm account for a smaller share of the overall emissions profile.

Overall, animal-based foods tend to have a higher footprint than plant-based but pig meat and eggs tend to be at the lower end of the spectrum. Global estimates of the carbon footprint of food stuffs suggest that a consumer could eat 8 to 10 times more pork than beef for the same carbon footprint. The lower rate of methane emissions from chicken relative to cows, the shorter life-cycle and the more efficient conversion of feed to weight gain all make pig meat more carbon efficient than beef, sheep-meat or pork.

Pig and pork production systems tend to be very similar internationally but production systems for beef and milk can vary substantially as can their emissions. According to Herrero et al (2013) carbon footprint values for beef and milk production in Europe can vary between 10 and 50 kg CO2 eq/kg per kilogram depending on the production system. It is therefore useful to compare the carbon footprint of pig production and other foodstuffs on data taken from local production systems.

Fig. 9.2.2: Estimates of the Carbon Footprint of Irish Livestock Products



Source http:// https://ourworldindata.org/food-choice-vs-eating-local

9.2 (b) Air Quality

As previously detailed the sites of the existing, and proposed, pig houses, are/are to be, located in an agricultural hinterland where typical levels of farm activity are existing/ to be found and expected.

9.2 (b)(i) Odour –

Odour associated with pig farming enterprises may arise from two situations:

* The pig farm site, and,
* The manure spreading operation.

The pig farm is located in an entirely agricultural hinterland where typical levels of farm odour are to be found and expected. This odour arises from farmyards and lands during the day to day operations such as silage feeding, manure agitation and manure spreading. The existing farm and proposed development, using the best available practices, will operate without a significant effect on the environment and the applicant/farm management will strive to minimise all potential environmental impacts. Well maintained, properly ventilated pig farms with modern manure management systems will minimise any potential adverse odour impact and will be practically odour free outside the confines of the site/immediate area. Transient increases in odour emissions may be associated with manure removal from the site. There are no noise/odour sensitive locations likely to be affected by the proposed development. This development will have no significant adverse affect on climate.

This existing / proposed pig farm/site of the proposed development, operates in a sparsely populated rural environment and hence the farm will cause no nuisance. A total of 2 locations have been identified with 250 m of the existing farm. Both of these belong to family members of the original owner of this pig farm, and one farms directly adjacent to the pig farm site, and where this farmyard is located between the pig farm site and these residential locations.

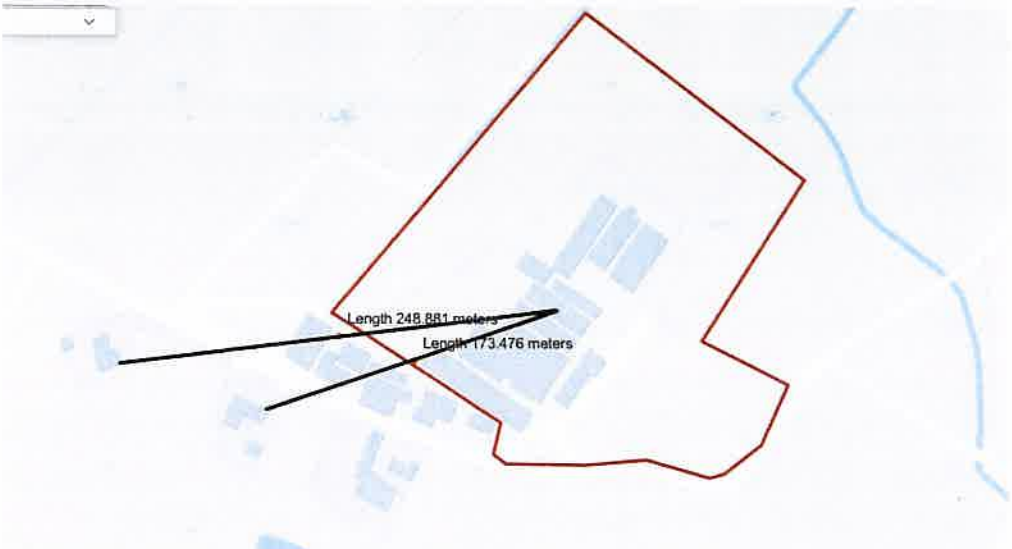


Fig 9.2.3 location of third party residences closest to the existing/proposed pig farm site. Note: These belong to family members of the original pig farm owner, one of which farm in the adjoining farmyard.

This site of the proposed development, operates in a lowly populated rural environment and hence the farm will cause no nuisance. A odour impact assessment of the existing farm was completed using the EPA guidance "Instruction note for the assessment of odour emissions from Intensive Agriculture pig installations" and associated screening tool. The existing activities and stock numbers were modelled to arrive at the existing baseline for the site.

Table 3: Odour emission factors for the different pig types used in the screening tool.

	Recommended odour emission rate (OUE/s/pig)
Sows	21
Farrowing Sows	20
Weaners	6
Growers	12
Finishers	20

Fig 9.2.4 Odur Emission factors taken from E.P.A. "Instruction note for the assessment of odour emissions from Intensive Agriculture pig installations"

In line with this guidance the acceptable odour levels specific to intensive agriculture are as follows:

- 5.0 OUE/m3 for existing pig-production units

The applicability of the above levels will be at odour-sensitive locations only.

The table below details the distance from the centre of the existing pig farm required to achieve the required thresholds, based on the current stock numbers, housing, manure storage and operating practices. As can be seen the 5 OUE/m3 threshold (applicable to existing farms is achieved at c. 371 m from the centre of the farm (The centre of the farm is used as per the guidance requirements). It is important to note that the E.P.A. Guidance is designed as a screening tool to, and as expressly detailed in the guidance "The screening tool enables the user to generate a worst-case odour impact".

Intersections

This section outlines if/where the decay curve crosses the relevant benchmark.
The intersection indicates the closest *'distance from centre'* point in metres.

Benchmark	Intersection
1.5 OUE/m³	747.5
3 OUE/m³	491.6
5 OUE/m³	371.2
6 OUE/m³	326.1

Table 9.2.5 – Existing odour emission levels conturs.

Bogue Pigs Unlimited Company will advise any future customer farmers receiving organic fertiliser from this farm, if and when they arise, that it should be applied to land in as accurate and uniform a manner as is practicably possible. All lands currently identified for the receipt of manure form the proposed development are tillage lands, be they Wheat, Barley, Potatoes etc., or grassland and all farmers will be advised that in order to minimise any potential adverse environmental impact and to ensure that they get maximum fertiliser benefit from the organic fertiliser, that all manure from this farm must be stored,

managed and applied in accordance with S.I. 588 of 2025 . It should also be incorporated/ploughed into the soil as soon as practicable after application. This fertiliser planning will result in fertiliser substitution, not addition, and all farmers will be advised that Low Emission Spreading Systems (LESS) shall be implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop.

Bogue Pigs Unlimited Company has/will advise all farmers receiving organic fertiliser from their farm that low emission spreading method of spreading shall be used and that adherence to the Teagasc Codes of Good Practice and S.I. 588 of 2025 will help them maintain a good working relationship with their neighbours. The application of organic fertiliser in accordance with S.I. 588 of 2025 ensures that excessive application of manure, which may lead to extra odour from surface soil saturation, will be avoided.

The utilisation of organic fertiliser in this way and in accordance with the Teagasc Codes of Good Practice will help them maintain a good working relationship with their neighbours. The application of organic fertiliser in accordance with S.I. 588 of 2025 will ensure that excessive application of manure, which could lead to extra odour due to surface soil saturation, will be avoided.

9.2(b)(ii) Ammonia and Nitrogen Emissions –

An Natura Impact Statement was completed in line with E.P.A. Guidance (**Assessing the Impact of Ammonia Emissions and Nitrogen Deposition from the Intensive Agriculture Installations on European Sites (IN1)** based on the potential impact of the proposed development, as discussed further in Chapter 12. The potential impact of the proposed development on ammonia levels were assessed in areas of specific interest in relation to vegetation. There are eleven Natura 2000 designated sites within 15km of the application site. These sites are summarised in Table 6.4.2(i) and a map showing their locations relative to the application site is shown in Figure 6.4.2(ii). A full description of the sites can be read on the website of the National Parks and Wildlife Service (www.npws.ie).

Table 9.2.(b)(ii) – Existing ammonia emission levels.

Animal Class	Existing Farm (as per Planning)	Ammonia Emission Factors. (Ref. 1)	Total ammonia emissions / annum
Farrowing	72	5.84	420.48
Dry Sow	254	3.01	764.54
Gilts	39	4.14	161.46
Weaners	1305	0.29	378.45
Growers (30-60 Kg)	656	1.59	1043.04
Finishers (60 kg - market weight)	984	4.14	4073.76
Total			6841.73

Ref. 1 Scall agriculture modelling.

Table 9.2 (b)(iii) Designated areas in vicinity of the site

Site Name & Code	Distance	Qualifying Interests	Potential Significant Effects

Moneybeg and Clareisland Bog SAC 002340	3.5km west	• Active raised bog • Degraded raised bogs still capable of regeneration • Depressions on peat substrates of the Rhynchosporion	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Sheelin SPA 004065	3.5km north-west 4.2km downstream	• Great Crested Grebe Podiceps cristatus • Pochard *Aythya ferina* • Tufted Duck *Aythya fuligula* • Goldeneye Bucephala clangula • Wetlands & waterbirds	*Having regards to the hydrological connectivity between the application site and this SPA, then significant effects upon this SPA arising from the construction and operation of the farm on this site will be considered further.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
White Lough, Ben Loughs and Lough Doo SAC 001810	6.7km south	• Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. • *Austropotamobius pallipes* (White-clawed Crayfish)	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Bane and Lough Glass SAC 002120	9.1km south-east	• White-clawed crayfish *(Austropotamobius pallipes)* • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant*

			effects upon this SAC arising from emissions due to the proposed development.
Lough Kinale and Derragh Lough SPA 004061	9.4km west	• Pochard *Aythya ferina* • Tufted Duck *Aythya fuligula* • Wetlands & waterbirds	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
Derragh Bog SAC 002201	9.6km west	• Degraded raised bogs still capable of natural regeneration • Bog woodland	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Lene SAC 002121	10.8km south	• White-clawed crayfish *(Austropotamobius pallipes)* • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Derravaragh SPA 004061	13km south	• Whooper swan *Cygnus cygnus* • Pochard *Aythya arina* • Tufted duck *Aythya fuligula* • Coot *Fulica atra* • Wetlands & waterbirds	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.*

			Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.
The River Boyne and River Blackwater SAC 002299	13.8km south-east	• River lamprey (*Lampetra fluviatilis*) • Salmon (*Salmo salar*) • Otter (*Lutra lutra*) • Alkaline fens • Alluvial forests with alder *Alnus glutinosa* and ash *Fraxinus excelsior*	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
The River Boyne and River Blackwater SPA 004232	14km south-east	• Common kingfisher *Alcedo atthis*	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
Garriskill Bog SAC 000679	14.8km south-west	• Active raised bogs • Degraded raised bogs still capable of natural regeneration • Depressions on peat substrates of the Rhynchosporion	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*

Figure 9.2b(i) – The Application Site (Red Dot) in relation to the Natura 2000 Sites within 15km. SACs – Red Hatching; SPAs – Pink Hatching

9.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Resldual Effects

9.3 (a) Climate:

Pig production is extremely efficient from a carbon perspective. International research shows that pork has one of the lowest carbon footprints of all meats.

The standard of management required for the proposed farm is high, and will be improved by the improvement in site infrastructure, and the operation of the proposed development, and its integration with the existing farming activities will benefit from the experience gained in the existing pig farm.

The houses will be continuously cleaned, the manure removed on a regular basis, stocked at optimum levels and adequately ventilated, ensuring minimal odour emissions. Should technical advances be made in odour reduction Bogue Pigs Unlimited Company will adopt any economically viable practices. Potential odour emissions from the proposed development will be minimised due to the improved manure management and storage facilities/practices which are and will be implemented as a result of the upgrading of the proposed development to be completed, and additional improvements to the ventilation systems and feed formulation to minimise potential odour impacts. As per E.P.A. guidance a 30% reduction in odour and ammonia emissions can be achieved by reducing the crude protein in the diets used on the farm.

All lands currently identified for the receipt of manure from the proposed development are tillage lands, be they Wheat, Barley, Potatoes etc., or grassland, and all farmers will be advised that in order to minimise any potential adverse environmental impact 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. 588 of 2025
.

Odour nuisance will be minimised and surface and ground waters protected by, using the correct application rates, even application, spreading at the correct times under suitable conditions and strict adherence to cordon sanitaires and Good Practice for manure spreading. This fertiliser planning will result in fertiliser substitution, not addition, and all farmers will be advised that Low Emission Spreading Systems (LESS) shall be implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop.

In addition to the mitigation measures previously referred to Bogue Pigs Unlimited Company will recommend to all customer farmers that organic fertiliser from this farm should not be applied to lands adjacent to neighbouring dwellings/potential odour sensitive locations. A recommended set back distance of 100 meters from an isolated dwelling and/or 200 meters from a potential odour sensitive area/group of dwellings will be recommended. Please refer to Appendix No. 12 for additional Met. Data.

9.3 (b)(i) Odour

The potential odour emissions from the proposed farm have been calculated using the E.P.A. publication "Instruction Note regarding Odour Emissions for Intensive agriculture Pig Installations (as this reflects current farm management practices, improvements in genetics, nutritional management, pig performance and provides additional detail regarding the application of applicable mitigation measures), as follows,

Table 3: Odour emission factors for the different pig types used in the screening tool.

	Recommended odour emission rate ($OU_E/s/pig$)
Sows	21
Farrowing Sows	20
Weaners	6
Growers	12
Finishers	20

Fig 9.3.1 – Odour Emission factors

Intersections

This section outlines if/where the decay curve crosses the relevant benchmark.
The intersection indicates the closest *'distance from centre'* point in metres.

Benchmark	Intersection
1.5 OUE/m³	446.5
3 OUE/m³	265.9
5 OUE/m³	190.6
6 OUE/m³	160.5

Table 9.3.1 – Odour emissions impacts in respect of the proposed development without additional mitigation.

The above table represents the potential odour emissions from the proposed development taking into account the revised stock numbers and improved infrastructures with no other mitigations measures included.

As a result of same same the extent of the area in excess of the 5 OUE/me is reduced from a c. 370m radius to a 190m radius. This is significantly influenced by better building construction and improved ventilation systems. In addition to the above a significant portion of the new farm development is at the opposite end of the farm from these residential locations thus moving the centre point of the farm further away, resulting in the closest resident being c. 189m from the centre of the pig farm, or essentially at the 5OUE/M3 threshold before implementation of additional mitigation measures on the farm.

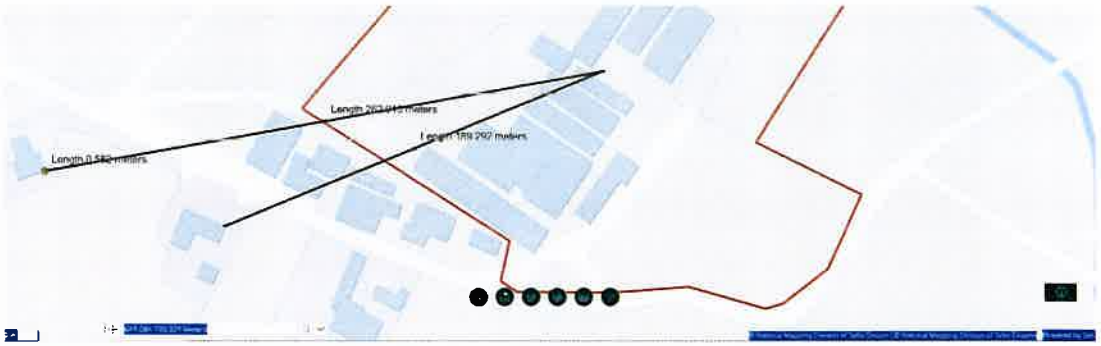


Fig 9.3.2 – Odour Sensitive locations relative to the centre of the proposed farm upon completion of works.

Furthermore the implementation of low protein diets on the farm (with the potential for a further 30% reduction in odour emissions) has the potential to reduce this further to c. 160m.

Intersections

This section outlines if/where the decay curve crosses the relevant benchmark.
The intersection indicates the closest *'distance from centre'* point in metres.

Benchmark	Intersection
1.5 OUE/m³	386.3
3 OUE/m³	235.8
5 OUE/m³	160.5
6 OUE/m³	145.5

Table 9.3.2 – Odour emissions impacts in respect of the proposed development including additional mitigation.

9.3(b)(ii) Ammonia (& Nitrogen) Emissions

Significant atmospheric emissions arising from agricultural developments can have negative impacts upon designated sites and their sensitive vegetation communities. Some vegetation communities are most sensitive to the effects of ammonia and nitrogen deposition than others. In general, communities containing notable bryophyte communities are the most sensitive and have a lower critical load for ammonia of 1 µg/m^3. Less sensitive habitats have a critical load of 3 µg/m^3.

In order to correctly assess the potential impacts of the operation of the farm on the Natura 2000 sites, the existing and potential ammonia emissions were calculated using reference data from Scail Agriculture modelling software.

Existing Ammonia Emissions as per Table 9.2(b)(ii)

Animal Class	Existing Farm (as per Planning)	Ammonia Emission Factors. (Ref. 1)	Total ammonia emissions / annum
Farrowing	72	5.84	420.48
Dry Sow	254	3.01	764.54
Gilts	39	4.14	161.46
Weaners	1305	0.29	378.45
Gowers (30-60 Kg)	656	1.59	1043.04
Finishers (60 kg - market weight)	984	4.14	4073.76
Total			6841.73

Ref. 1 Scail agriculture modelling

Table 9.3(b)(i) Proposed Ammonia Emissions based on planned stock numbers.

Animal Class	Proposed Farm	Ammonia Emission Factors. (Ref. 1)	Total ammonia emissions / annum
Farrowing	190	5.84	1109.6
Dry Sow	450	3.01	1354.5
Gilts	100	4.14	414
Weaners	3100	0.29	899
Gowers (30-60 Kg)	500	1.59	795
Finishers (60 kg - market weight)	110	4.14	455.4
Total			5027.5

The overall purpose of this screening report was to quantify the potential impact of ammonia (and nitrogen) levels at the ecologically sensitive areas in the vicinity of the proposed pig farm development. The alteration in stock numbers will result in a c. 26% drop in ammonia emissions before any other mitigation is considered. Low protein diets are likely to reduce this further (by up to 30% as per E.P.A. Guidance). As the proposed development will result in a drop in ammonia emissions and a reduction in potential impacts same is in compliance with Step 6 of the E.P.A. guidance, on the assessment of impacts of emissions on Natura 2000 sites (*Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 sites from Intensive Agriculture Installations, EPA 2021, updated 2024*).

➢ ***Conclusions (From Natura Impact Statement)***

For atmospheric emissions, the EPA have recently produced guidance documents for the assessment of impacts of emissions on Natura 2000 sites (*Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 sites from Intensive Agriculture Installations, EPA 2021, updated 2024*). This document contains a step-by-step assessment process which allows the applicant to ascertain the level of assessment and information needed when determining potential effects from emissions on Natura 2000 sites. Step 6c of the flow chart (Appendix I) makes a provision for applicants to demonstrate that the emissions from the new installations will result in an overall reduction in emissions from the baseline numbers.

Although there will be in increase in stock arising from the proposed development, the changes in stock type will result in an overall reduction of atmospheric emissions by approximately 26%. As the final emissions from the farm upon completion of the works will be reduced below that that previously permitted, detailed atmospheric modelling is not required in this instance.

In accordance with Article 6(3) of the Habitats Directive, the relevant case law, established best practice and the precautionary principle, this AA Screening Report has examined the details of the project in relation to the relevant Natura 2000 sites within 15km of the application site.

At this stage of the AA process, it is for the competent authority, i.e., Meath County Council, to carry out the screening for AA and to reach one of the following determinations:

a) AA of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites;

b) AA of the proposed development is *not* required if it can be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites.

It is of the opinion of the author that an AA of the proposed development is not required as it can be excluded, on the basis of objective information provided in this report, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites.

Appendix I: EPA Flow Chart (2024)

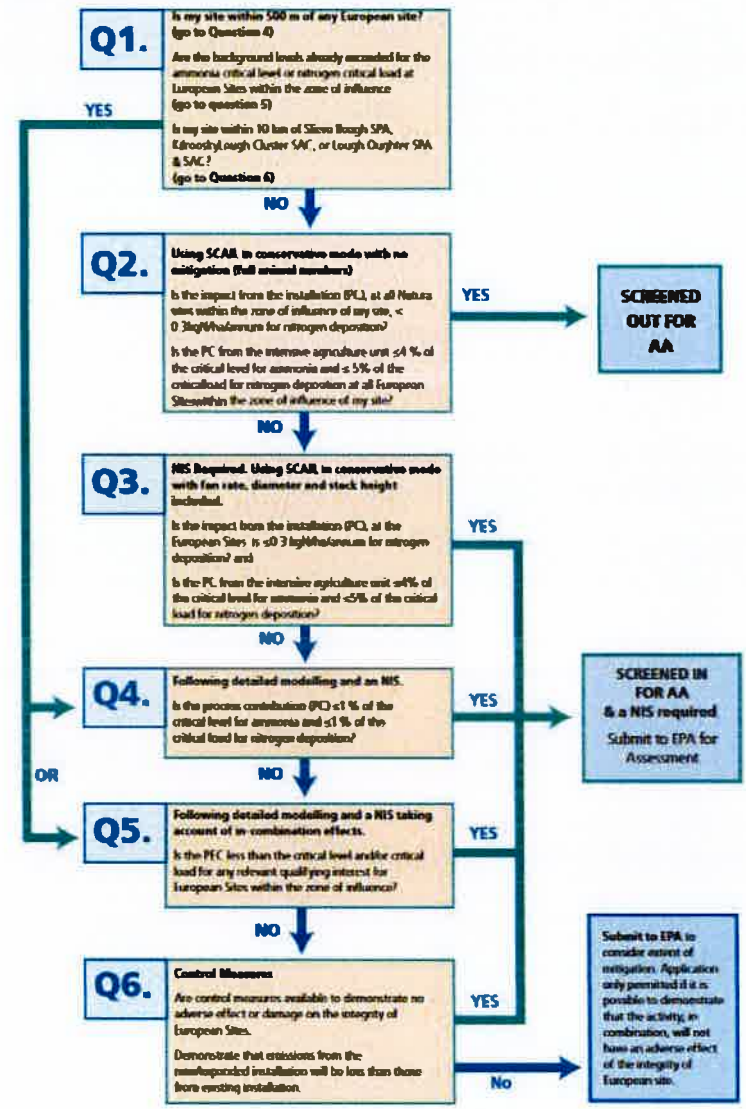


Figure 9.3 – EPA Flow Chart, Taken from Annex I of the Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 sites from Intensive Agriculture Installations, EPA 2024

9.4 Conclusions

(a) Site and immediate area

The proposed development, using the best available practices, will operate without a significant effect on the environment and the applicant/farm management will strive to minimise all potential environmental impacts. Well maintained, properly ventilated pig houses with modern manure management systems will minimise any potential adverse odour impact and will be practically odour free outside the confines of the site/immediate area. Transient increases in odour emissions may be associated with manure removal from the site.

There are no noise/odour sensitive locations likely to be affected by the existing and / or proposed developments. This development will have no significant adverse affect on climate. The closest third party dwelling to the proposed site, is located c. 260m west of the proposed development. As can be seen from the previous tables above, potential odour and ammonia emissions from the farm will be reduced by the alteration in stock numbers and implementation of additional mitigation measures. All results are/will be well below the required levels.

This proposed pig houses/site of the proposed development, is located in a sparsely populated rural environment and hence the farm will cause no nuisance. As discussed odour and ammonia emissions form the farm will be reduced due to the alteration in stock numbers and additional mitigation measures to be implemented.

The houses will be continuously cleaned, the manure removed on a regular basis, stocked at optimum levels and adequately ventilated, ensuring minimal odour emissions. Should technical advances be made in any area of operation within the farm Bogue Pigs Unlimited Company will adopt any economically viable practices. Potential odour emissions from the proposed development will be minimised due to the high standard of design, construction and operation of the existing and proposed farm developments. The rural location of the site of the proposed development, well isolated from neighbouring dwellings and potential odour sensitive locations makes this an ideal site for the purposes of the proposed development.

All practicable steps, such as landscaping, management routines etc., have been/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. This development will have no significant adverse affect on climate. Low Emission Spreading Systems (LESS) will be recommended for the application of all soiled water arising from the proposed development.

As the pigs will be maintained in a controlled environment within the proposed development, the operation of the farm is not directly significantly susceptible to climate change, however climate change may impact on energy use associated with ventilation systems to maintain a controlled environment within the houses relative to outside climatic conditions, and, may have implications for feed supply to feed the animals, due to impact on crop yields etc.

(b) Customer Farmers

Bogue Pigs Unlimited Company will advise any future customer farmers receiving organic fertiliser from this farm, if and when they arise, that it should be applied to land in as accurate and uniform a manner as is practicably possible. All lands currently identified for the receipt of manure form the proposed development are tillage lands, be they Wheat, Barley etc., and all farmers will be advised that in order to minimise any potential adverse environmental impact and to ensure that they get maximum fertiliser benefit from the organic fertiliser, that all manure from this farm must be stored, managed and applied in accordance with S.I. 588 of 2025 . It should also be incorporated/ploughed into the soil as soon as practicable after application. The utilisation of organic fertiliser in this way and in accordance with the Teagasc Codes of Good Practice will help them maintain a good working relationship with their neighbours. The application of organic fertiliser in accordance with S.I. 588 of 2025 will ensure that excessive application of manure, which could lead to extra odour due to surface soil saturation, will be avoided.

All lands currently identified for the receipt of soiled water from the proposed development are tillage lands, be they Wheat, Barley, Beans, Potatoes, Oil Seed Rape etc., and all farmers will be advised that in order to minimise any potential adverse environmental impact and to ensure that they get maximum fertiliser benefit from the organic fertiliser, that all organic fertiliser from this farm should be stored, managed and utilised/applied in accordance with S.I. 588 of 2025 . Odour nuisance will be minimised and surface and ground waters protected by, using the correct application rates, even application, spreading at the correct times under suitable conditions and strict adherence to cordon sanitaires and Good Practice for manure spreading, as outlined in S.I. 588 of 2025. This fertiliser planning will result in fertiliser substitution.

In addition to the mitigation measures previously referred to Bogue Pigs Unlimited Company will recommend to all farmers that organic fertiliser / soiled water from this farm should not be applied to lands adjacent to neighbouring dwellings/potential odour sensitive locations. A recommended set back distance of 100 meters from an isolated dwelling and/or 200 meters from a potential odour sensitive area/group of dwellings will be recommended. Please refer to Appendix No. 12 for additional Met. Data.

The applicant, Bogue Pigs Unlimited Company, will advise any farmers receiving organic fertiliser from this farm, if and when they arise, that it should be applied to land in as accurate and uniform a manner as is practicably possible and all farmers will be advised that in order to minimise any potential adverse environmental impact and to ensure that they get maximum fertiliser benefit from the organic fertiliser/soiled water, that same must be stored, managed and applied in accordance with S.I. 588 of 2025 .

This fertiliser planning will result in fertiliser substitution, not addition, and all farmers will be advised that organic fertiliser should be incorporated into the soil immediately after spreading, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop. The utilisation of organic fertiliser/soiled water in this way and in accordance with the Teagasc Codes of Good Practice will help them maintain a good working relationship with their neighbours. The application of organic fertiliser/soiled

water in accordance with S.I. 588 of 2025 , will ensure that excessive application, which could lead to extra odour due to surface soil saturation, will be avoided. Other than the good practice measures as discussed no additional site specific mitigation measures are required.

The fact that the farmers in the proposed customer farmer list are allocating organic fertiliser in accordance with the provisions of S.I. 588 of 2025 , particularly with regard to amounts applied, weather and ground conditions at the time of spreading, and even application, etc., will ensure that emissions are kept to an absolute minimum.

Any additional 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. 588 of 2025 , and with Low emission spreading techniques and/or incorporated/ploughed into the soil as soon as practicable after application, where possible. As a result this farm will have no significant effect on the climate in the area.

Inappropriate application of fertiliser (organic or inorganic) can lead to deleterious impacts upon the receiving waters in local catchments and it can result in eutrophication, algal blooms, fish kills and loss of biodiversity. Impacts can affect both surface water and groundwater. In response to this, specific regulations, known as EUROPEAN COMMUNITIES (GOOD AGRICULTURAL PRACTICE FOR PROTECTION OF WATERS) REGULATIONS (currently SI 588 of 2025) have been implemented over the last c. 15+ years, to address these risks.

These regulations apply to all customer farmers, and make specific provision to the manner, amount, timing and conditions associated with the application of fertiliser to land and all associated requirements pertaining to same. These requirements are routinely updated (at least every 4 years) to respond directly to trends in water quality, and advances in agricultural practices, and the requirements therein are the appropriate measures that govern the customer farmers when applying organic fertiliser from this farm (existing and proposed) to their lands as an alternative to other/chemical fertiliser. The re-distribution of organic fertiliser nutrients from farms such as the existing / proposed development to farms lacking in fertiliser nutrients is an important part of the Agricultural cyclical economy and the local redistribution of nutrients should be prioritised and encouraged in preference to imported chemical nutrients, particularly in light of recent developments concerning global energy and fertiliser supplies an supply chains.

The customer farmers will continue to use the manure from this development on their agricultural lands as an organic fertiliser to replace existing fertiliser sources, ***as part of a fertiliser substitution programme (organic for inorganic/chemical) with no increase in the overall level of nutrients applied*** and in line with fertiliser application limits prescribed by S.I. 588 of 2025 . These lands are identified to the DAFM on an annual basis for agricultural purposes. All farmers will be advised that Low Emission Spreading Systems (LESS) shall be implemented, to minimise odours and ammonia emissions and maximise the fertiliser value/uptake by the crop.

10 Visual Aspects and Landscape

10.1 Introduction:

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

10.2 Environmental Setting / Receiving Environment

The farm area is c. 4.05 hectares and it located in a rural area, in the townland of Ballinrink in Northwest of Co. Meath. County Meath is situated in the east midlands of Ireland. The proposed site is located in the north of the county, c. 0.44 km's from the border with Co. Cavan. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

In the Meath County Development Plan 2021-2027 (Appendix No. 5 ~ Landscape Character Assessment), the existing development, and proposed development site is located within the Lough Sheelin Uplands (Area 18),

The site of the existing pig farm, and site of the proposed development is not obtrusive in the surrounding landscape. The ground levels are as depicted in the site plans, sections and contour details as submitted with this application.

The proposed development will be carried out on/or adjacent to the existing pig farm site. This pig farm is located in an agricultural area. The site location nestled into the surrounding land topography and integrated to the rear of the existing farmyard and residential facilities will help screen the proposed farm from view and/or integrated same into the local landscape.

This site of the proposed development/farm is an existing long established pig farm site/ agricultural land owned by Bogue Pigs Unlimited Company The area of the proposed development is in part a;

- An existing pig farm, where a significant proportion of the proposed development relates to the replacement of the existing pig farm structures, and where a development of a similar nature (albeit without the proposed operational alterations) has been and is currently approved by Meath Co. Co. ,
- greenfield site adjacent to the existing pig farm to facilitate the proposed development.

This area is identified as Area No. 18 (Lough Sheelin Uplands) in the landscape character assessment contained in the Meath County Development Plan. This area is classed as having a high landscape character value, with high sensitivity.

The general area and the area immediately adjacent to the existing/proposed site has a sloping topography similar to a significant part of this area of Co. Meath and surrounding areas, and is described as Limestone Till.

The existing pig farm buildings, landscaping and hedgerows will help to screen the development from the local view and help integrate it into the surrounding landscape. The existing farm has been developed on a site that is not intrusive on the landscape. The pig houses are to be grey/green in colour with grey cement fibre/dark coloured roofs and approximately 6-7 metres in height. The circular feed silos are c. 8-10 metres high and are green or grey in colour.

The nature of the existing / proposed site and its location on and/or in close proximity to the existing pig farm, integrated into the landscape and with the applicant's existing farmyard complex, and located on/adjacent to a site previously approved/currently authorised by Meath Co. Co., will ensure that there will be no significant adverse visual impact on the local environment from the proposed development. The site is not located near to or likely to affect any National Heritage Areas, Special Areas of Conservation (S.A.C.), Special Protection Area (S.P.A.), and/or key views/prospects as listed in the Meath County Development Plan 2021 - 2027.

The site in question is approximately 4.05 ha and it is located in a rural area within the townland of Ballinrink. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent.

The proposed development will be carried out on/or adjacent to the existing pig farm site. This pig farm is located in an agricultural area, and developments at this location has previously been, and/or is currently approved by Meath Co. Co. The site location nestled into the surrounding land topography and integrated into the existing facilities will help screen the proposed farm from view.

The existing farm and site of the proposed development is not located close to, or likely to adversely impact on;

- areas of major / secondary tourist attractions,
- paths, cycleways and/or driving routes,
- key view points, and/or,
- the extent of any views,

as listed in the Meath Development Plan 2021 - 2027.

The proposed development is located in an area referred to as Lough Sheelin Uplands with High landscapoe Value and High Sensitivity as depicted in Fig. 10.2(1) and 10.2(3).

Figure 10.2(1) Landscape Character Areas as Detailed in the Meath County Development Plan.

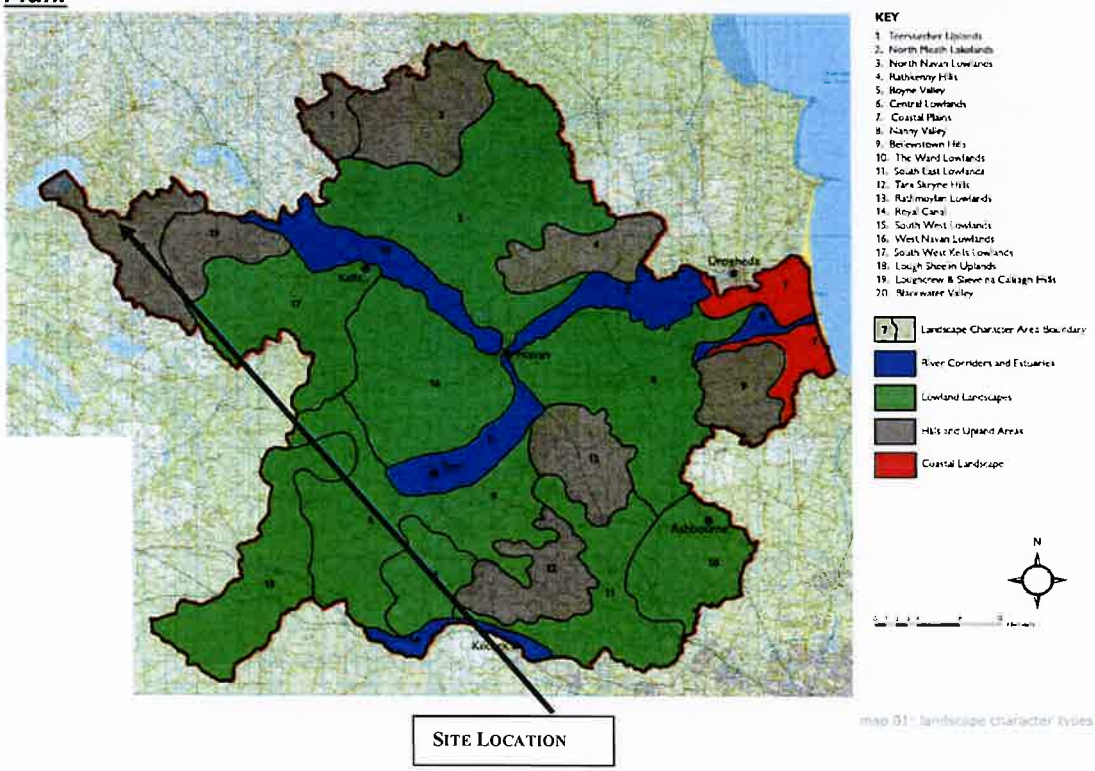
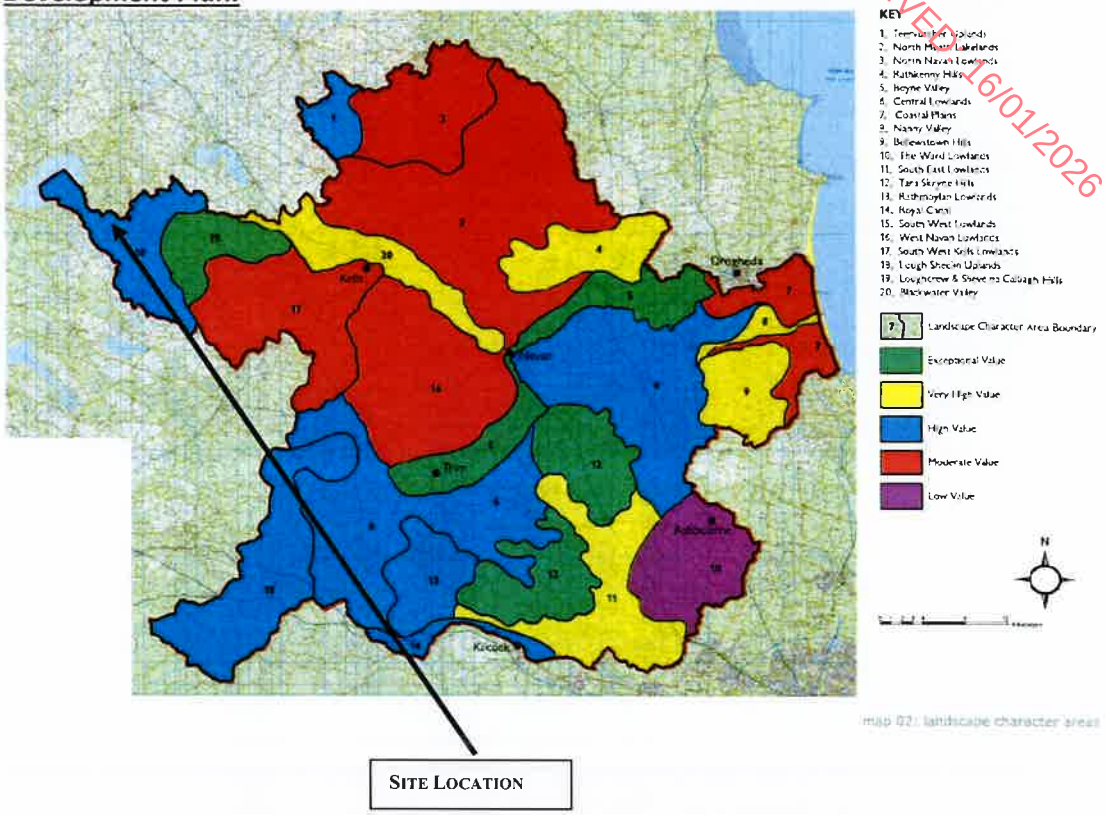
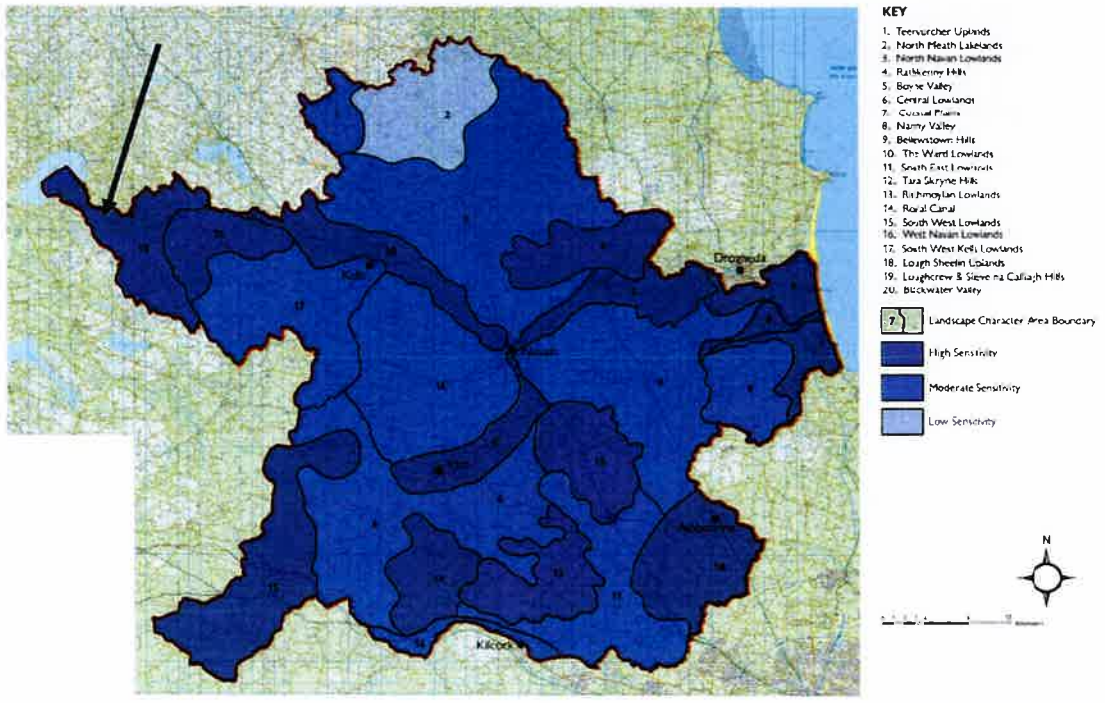


Figure 10.2(2) Landscape Character Area Values as Detailed in the Meath County Development Plan.



map 02: landscape character areas

Figure 10.2(3) Landscape Sensitivity as Detailed in the Meath County Development Plan.



map 03: landscape sensitivity

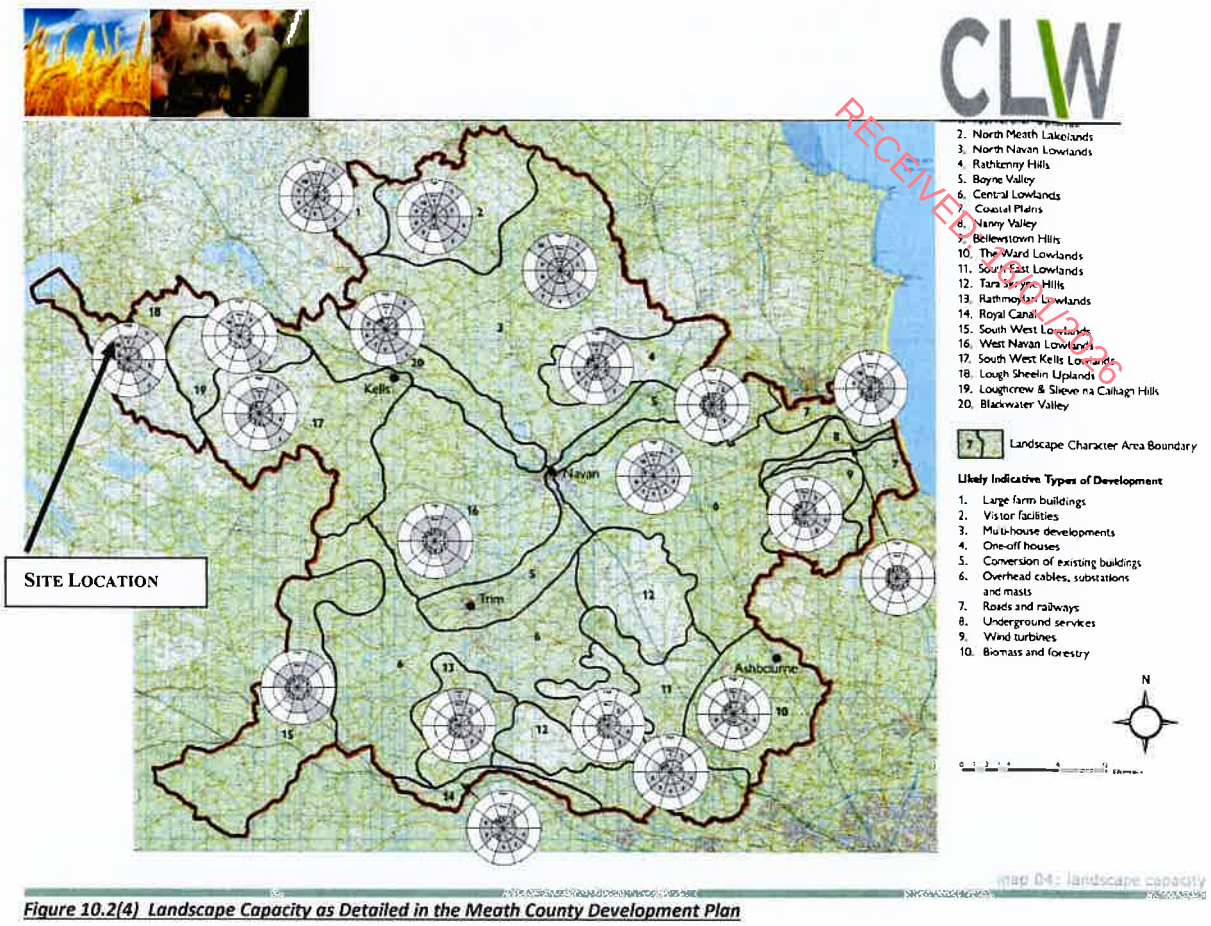


Figure 10.2(4) Landscape Capacity as Detailed in the Meath County Development Plan

10.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Residual Effects

This site of the proposed development/farm is an existing pig farm site and/or agricultural land owned by Bogue Pigs Unlimited Company immediately adjacent to same and previously approved by Meath Co. Co. for a significant re-development of the existing pig farm site, but not providing for any changes to operational practices. The development currently proposed is to be completed in lieu of these previously approved works

The site of the proposed development/farm is agricultural land, owned by the applicant. The site in question is approximately 4.05 ha and it is located in a rural area within the townland of Ballinrink. Access to the site is via the existing entrance and access road into the farm and this is just off a local, third-class road. The site is situated 5.9km west of Oldcastle and 5.2km south of Mount Nugent, c. 3.5 Km from the regional route, the R154, between Oldcastle, and Mountnutent. The proposed development will be carried out on the site of, and/or adjacent to the existing pig farm and ancillary structures and facilities, and will replace / upgrade the existing development and allow for a sustainable alteration/specalisation/re-alignment of the approved farming activities, with essentially no intensification of activities.

This pig farm will be located in an agricultural area. The site location nestled into the surrounding land topography, integrated with the existing developments and wider landscape will help screen the proposed development from view and integrate it into the local area.

The existing farm and site of the proposed development is not located close to, or likely to adversely impact on;

- areas of major / secondary tourist attractions,
- paths, cycle-ways and/or driving routes,
- key view points, and/or,
- the extent of any views,

as listed in the Meath County Development Plan 2021 - 2027.

The proposed development will be completed on an existing pig farm site that is nestled into the surrounding lands and is not intrusive on the landscape. The proposed development will be completed in lieu of those developments that have previously been approved by Meath Co. Co. under Planning Ref. 24/60324. The pig houses will be dark/green in colour with dark/green coloured roofs and approximately c. 5-6 metres in height. The circular feed silos will be c. 8-10 metres high and are green or grey in colour.

While the proposed development will change the appearance of the application site, due to the proposed additional structures, it is not anticipated that this development will have any significant impact upon the setting of the surrounding countryside, for the following reasons;

- The location selected for the proposed development, is integrated into the surrounding landscape, and the selected finished floor level ensures that the proposed development will not have a significant adverse visual impact.

- The location of the site, integrated with the existing developments and a significant portion of which is to occur on a previously approved site.

- The buildings will be, block and plaster finish and/or clad in Juniper Green cladding (or similar) with green/dark coloured roofs, thus integrating the proposed buildings into the local environment, and with the existing pig farm structures. Should the planning authority request more suitable colours for the buildings, Bogue Pigs Unlimited Company will be happy to oblige.

As a result of the;

- Nature of the existing site, (agricultural and Pig farm development, and the environmental and animal welfare upgrades to a previously approved/currently authorised development)
- nature of the proposed development (low overall height, and similar / green finish to buildings),
- set back distance from the public road,
- Removed from any sensitive locations (dwelling houses etc.)
- Nature of the site
- Existing hedgerows bounding the site,
- Proposed landscaping

And /or other mitigation measures as outlined, this farm will have no impact on the landscape or visual/scenic characteristics of this area.

This pig houses will be located in an agricultural area and has been located so as to comply with D.A.F.M. and/or Bord Bia Requirements. The site location nestled into the surrounding land topography, integrated within the existing natural and build landscape, set low in the landscape and replacing the existing structurers (and to be completed in line ofg a similar development previously approved on this farm) will help screen the proposed development from view and integrate it into the local area. The existing farm and site of the proposed development is not located close to, or likely to adversely impact on any, Areas of Outstanding Natural Beauty, Areas of High Scenic Quality and/or Scenic Routes, Views and/or prospects, as listed in the Meath Development Plan 2021-2027.

This farm will have no impact on the landscape or visual/scenic characteristics of this area. Additional landscaping in line with S.I. 135 may be considered where applicable.

11 Noise

11.1 Introduction:

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

- Demolition of 19 No. existing pig houses,
- Construction of 5 No. New pig houses, and an extension to 1 No. existing pig house,
- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

11.2 Environmental Setting / Receiving Environment

Noise levels are measured in decibels and a weighting factor (A) is applied to approximate the frequency response of the human ear. This weighted decibel scale, dB (A), correlates well with human sensations of loudness, disturbance and annoyance. Background noise levels in rural areas of Ireland are in the 45-50 dB (A) range. The peak noise periods on Pig houses are associated with feed deliveries which will occur during the normal working day. This farm will have state of the art buildings with high insulation standards. Due to its remote location and the low population density in the area, this pig house will not create a disturbance or annoyance to anyone.

There has been no noise complaints regarding the existing farming activities, and it is anticipated that the proposed development will not give rise to any such complaints. Where practicable all heavy traffic into or out of the site will be during the normal working day and will cause no noise disturbance.

The proposed development in terms of the nature and type of activity, feed deliveries etc. is similar to the previously approved development.

11.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures and any Residual Effects

The noise from the development will be limited to that arising from the operation of ventilation systems, feed augers, blowers on feed delivery trucks etc. Any potential noise generated by the pigs etc. will not be detectable outside the site boundary due to high insulation standards.

Sources of noise from pig farms typically agricultural in nature and are associated with:

- Livestock – (Generally inaudible outside of the site boundary)
- housing
- Feed Deliveries
- manure management.

It is not considered that noise resulting from activities at this site, at the proposed stocking rates, will have any significant impact on the local environment. The proposed development in terms of nature, scale and level of activity is essentially unchanged from the previously approved, and currently existing, development.

Due to its rural location and the low population density in the area, this pig farm will not create a disturbance or annoyance to anyone. All traffic and movements into and out from the site will occur during the normal working day.

11.3 (i) Construction Noise Impact Assessment

A variety of plant will be used in the construction of the pig farm development. Typical sources of noise for a number of specific activities are shown below.

Phase	Plant Item (BS 5228 Ref.)	Plant Noise Level at 10m Distance[1] (dB L_{Aeq})	Predicted Noise Level at NSL 1 (dB $L_{Aeq,1hr}$)
Demolition & Site Preparation	Tracked excavator (C2.22)	72	60
	Dumper (C4.2)	78	
Foundation Laying	Compressor (D7 6)	77	63
	Poker Vibrator (C4 33)	78	
	Cement Mixers (C4.22)	76	
Steel Erection	Wheeled Mobile Crane (C4.38)	78	62
	Articulated Lorry (C11.10)	77	
General Construction	Compressor (D7 6)	77	63
	Diesel Hoist (C7.98)	76	
	Pneumatic Circular Saw (D7.79)	75	
	Generator (C4.84)	74	
	Internal Fit-out	70	
Roadworks	Surfacing & Rolling (D.8.26)	80	61 (150m) / 80 (10m)

Table 11.3 Predicted Noise Emission levels at source (10m) and closest Noise Sensitive locations (in the above table the distance is 150m, whereas in this application the closest NSL is c. 190m from the centre of the farm).

The predicted construction noise levels at the nearest residential dwellings are anticipated to fall within the maximum criteria for construction activities during daytime and Saturday periods.

Construction noise associated with the previously approved development will be indistinguishable from the as per the current application.

11.3 (ii) Applicable Thresholds.

The E.P.A. typically set Noise thresholds for licensable agricultural sites. Please see below extract from typical existing E.P.A. Licence detailing noise emission limits.

B.4 Noise Emissions

Daytime dB LAr, T (30 minutes)	Evening dB LAr, T (30 minutes)	Night-time dB LAeq, T (30 minutes) Note 1
55	50	45

Note 1: During night time hours, there shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location

Fig 11.3 Extract from typical E.P.A. Licence

11.3(iii) CONSTRUCTION PHASE NOISE MITIGATION CONSIDERATIONS

Best practice guidance can be referenced from *BS 5228: Noise control on construction and open sites* in this instance. This document provides detailed guidance on the control of noise from demolition and construction activities.

The scheme contractor should adopt the following measures / policies during construction to ensure that construction noise emissions from the development are minimised as far as practicable:

- ✓ Limit construction activities to daytime periods only;
- ✓ Ensure noise generated during the construction phase is in line with the National Roads Authority (NRA) guidance document for construction noise;
- ✓ Establish channels of communication between the contractor / developer, Local Authority and local residents;
- ✓ Appoint a site representative responsible for matters relating to noise;

Furthermore, it is envisaged that a variety of practicable noise control measures will be employed. These should include:

- ✓ Selection of plant with low inherent potential for generation of noise;
- ✓ Erection of barriers as necessary around items such as generators or high duty compressors;
- ✓ Placement of noisy plant as far away from sensitive receptors as permitted by site constraints.

12 Ecology / Biodiversity

12.1 Introduction:

The site of the proposed development/farm is agricultural land owned by and/or available to Bogue Pigs Unlimited Company and forms part of and/or is directly adjacent to, this overall landholding, at the site of the proposed development. The area of the proposed development is an existing pig farm / brownfield site, and greenfield area located to the rear of the existing site.

The ***existing pig farm*** operates as a c. 280 Sow (ex. served gilts) integrated pig farm. This farm houses 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 farm initially commenced in the 1970's has been maintained and upgraded over the years, including the completion of a new dry sow/farrowing accommodation to meet increasing welfare requirements in this area etc. (Planning Ref. KA120409, KA70404 & KA60752).

This Environmental Impact Assessment Report was prepared in conjunction with a planning application to Meath County Council in respect of the;

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- Together with all ancillary structures and associated site works, arising from the above development at Ballinrink, Oldcastle, Co. Meath

to be completed by the applicant in conjunction with a refurbishment and sustainable alteration/specalisation of the operation of the existing farming practices, on an existing pig farm site at Ballinrink, Oldcastle, Co. Meath, and replacing those developments previously authorised under Planning Ref: 24/60324.

The farm which currently operates as a c. 280 Sow (ex. served gilts) integrated farm, will be developed to operate as a specialised 640 Sow (excl. Served Gilts) breeding pig farm upon completion of the proposed developments.

12.2 Environmental Setting / Receiving Environment

12.2.1 Flora and Fauna

(a) Site and immediate area

As previously described the proposed development will be carried out on the site of and/or adjacent to the existing pig houses and site of the existing development, on lands belonging to the applicant. The Bio-diversity (Flora and Fauna) associated with the site and surrounding lands has developed in line with the agricultural activities carried out within this area.

Agriculture is the main land-use in the area surrounding the application site and the dominant habitat locally is improved agricultural grassland. Other habitats represented in the area include, unimproved – wet grasslands, coniferous forestry plantations, hedgerows, treelines and watercourses.

There are no specific unique habitats, flora and/or fauna on this site that require specific protection. See appendix 18 for details on heritage areas and important habitats as contained in the county development plan.

There are no specific unique habitats, flora and/or fauna on this site that require specific protection. See Fig. 12.2.2(i) for details on heritage areas and important habitats as contained in the county development plan. The proposed development will require minimal hedgerow removal to facilitate the site development works and, there will be minimal hedgerow removal.

(b) Proposed customer farmlands.

The proposed customer farmlands typically used for grass / tillage production. Organic fertiliser / soiled water from this proposed pig farm can only be applied to agricultural lands where a crop response, be it tillage/maize etc., is anticipated. S.I. 588 of 2025 , governs fertiliser application on all Irish farms. As detailed previously the customer farmlands are deemed to be beyond both the scope and requirement of this E.I.A.R., however it is worth noting the significant array of Good Practice measures (not considered mitigation for the purposes of this EIAR, as they are legally required by S.I. 588 of 2025) that apply to the management of organic fertiliser. Some of these measures as they apply to this chapter are detailed hereafter, however please refer to Appendix. No. 17 For a full copy of S.I. 588 of 2025 .

The land for receipt of organic fertiliser (organic manure and soiled water) from this farm will be used for tillage / grassland production. Traditionally animal manure has been applied to these lands as a source of fertiliser, and to replace energy inefficient inorganic fertiliser / pig manure. The Bio-diversity (Flora and Fauna) associated with these areas and surrounding lands has developed in line with the agricultural activities carried out.

12.2.2 Special Policy Areas

To provide protection to heritage items Planning Authorities have designated Special Policy Areas. These areas relate to areas of important heritage items worthy of protection and conservation. Within the special policy area it is the policy of the Planning Authorities to regulate and restrict any development that may threaten the value or integrity of the asset. Development proposals which would have an unacceptable impact on objects, items or sites included in the above lists will not be allowed. Where development is allowed the Planning Authority may include conditions to reduce or ameliorate adverse impacts.

These Special Policy Areas include:

(A) Nationally Designated Environmental areas.

- **Natural Heritage Areas (N.H.A.'s)**

The basic designation for wildlife is the Natural Heritage Area. This is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection. To date, 75 raised bogs have been given legal protection, covering some 23,000 hectares. These raised bogs are located mainly in the midlands. A further 73 blanket bogs, covering 37,000ha, mostly in western areas are also designated as NHAs. In addition, there are 630 proposed NHAs (pNHAs), which were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. These sites are of significance for wildlife and habitats. The pNHAs cover approximately 65,000ha and designation will proceed on a phased basis over the coming years.
Until formal statutory designation of these sites takes place proposed H.N.A.'s are subject to limited protection, one of which includes the recognition of NHA ecological values by Planning and Licensing Authorities. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation.

- **Special Protection Areas (S.P.A.'s)**

Ireland is a special place for wild birds. We are at the end of major flyways of waterfowl migrating south for the winter from North America, Greenland, Iceland and the Arctic. In spring and summer, Ireland provides important breeding grounds for species from the continent of Europe or Africa. Our long coastlines provide safe breeding and wintering grounds for large numbers of seabirds. In addition we have resident species which are scarce or rare in other parts of Europe.

Specific proposals to designate Special Protection Areas (SPAs) in order to safeguard certain habitats pursuant to EU Directive requirements are advertised in the local press and on local radio. These proposals are intended to safeguard the habitat of these selected sites.

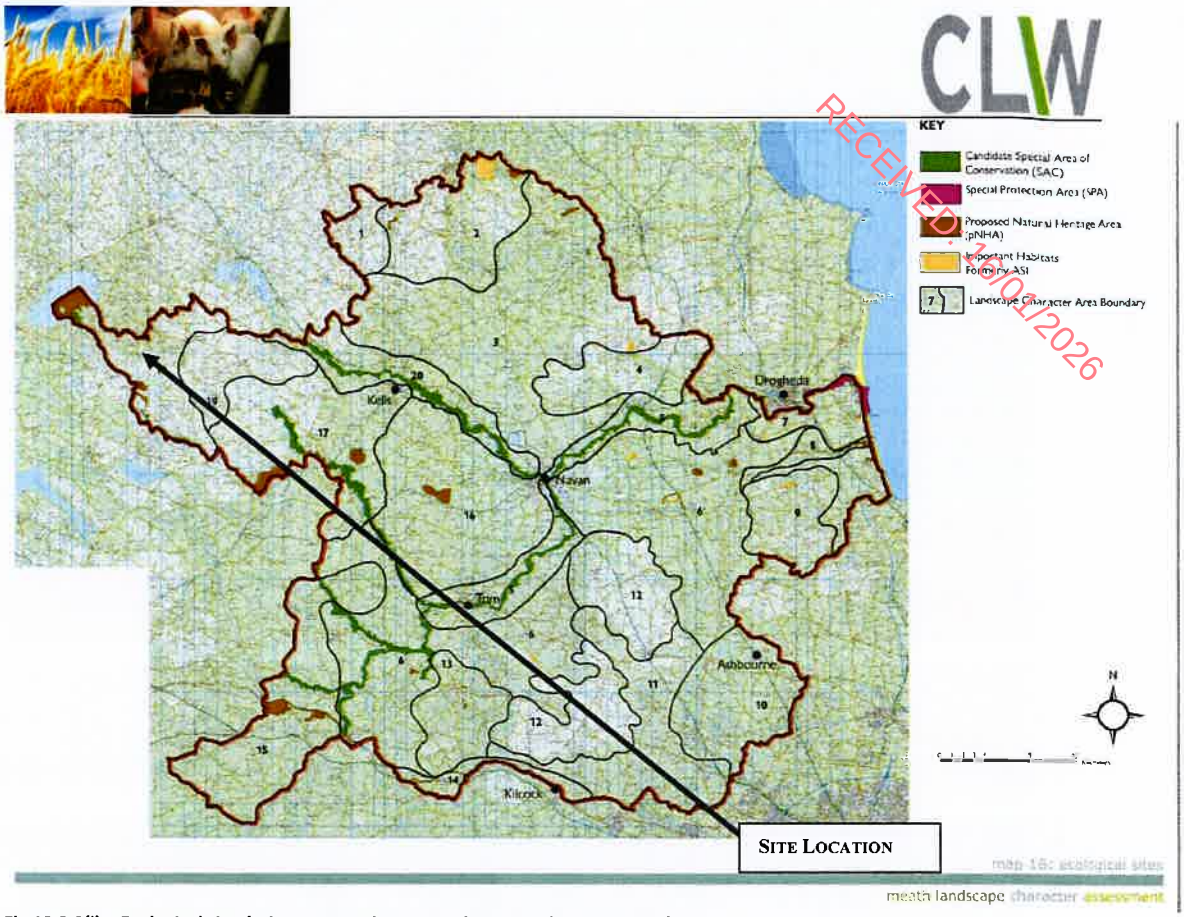

Fig 12.2.2(i) – Ecological sites(– Source Meath CO. Development Plan 2021-2027)

The EU Birds Directive (79/409/EEC) requires designation of SPAs for:

- Listed rare and vulnerable species.
- Regularly occurring migratory species, such as ducks, geese and waders.
- Wetlands, especially those of international importance, which attract large numbers of migratory birds each year. (Internationally important means that 1% of the population of a species uses the site, or more than 20,000 birds regularly use the site.)

A significant number of SPAs have been designated since 1985. It should be noted that many existing and future SPAs overlap with SACs. The Irish SPAs join a total of around 3,000 sites across the European Union.

- **Special Areas of Conservation (S.A.C.'s)**

Special areas of conservation are prime wildlife conservation areas considered to be important on a European level as well as an Irish Level. The legal basis on which Special Areas of Conservation are selected and designated is the EU Habitats Directive (92/43/EEC), transposed into Irish law in the European Union (Natural Habitats) Regulations, 1997. These regulations have been amended twice with SI 233/1998 and SI 378/2005. The areas chosen as SAC in Ireland cover an area of approximately 13,500 square kilometers. Roughly 53% is land, the remainder being marine or large lakes. Across the EU, over 12,600 sites have been identified and proposed, covering 420,000 sq. km. of land and sea, an area the size of Germany. S.P.A.'s and S.A.C.'s collectively form part of 'Natura 2000', a network of protected areas throughout the European Union.

The application site is located within the Upper Shannon Hydrometric Area (26) and River Catchment (26F), and the Inny Sub-Catchment (010) and Sub-Basin (040). There is an open drain present at the north-western corner of the application site (approximately 58m west of proposed construction works). Clean surface water from the site is being directed to this drain. This drain connects via a small stream to the River Inny, which is 339m north of the application site. The River Inny flows in a north-westerly direction and it enters Lough Sheelin at a point 3.5km north-west of the application site.

The EPA have classed the ecological status of the Inny River and its tributaries at points close to the application site as moderate status. Lough Sheelin is also noted to be of moderate status. Under the requirements of the Water Framework Directive, this is unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027.

See Appendix No. 13 for further details in the Natura Impact Statement.

An Natura Impact Statement was completed in line with E.P.A. Guidance (**Assessing the Impact of Ammonia Emissions and Nitrogen Deposition from the Intensive Agriculture Installations on European Sites (IN1)** based on the potential impact of the proposed development, as discussed further in Section 7.4. The ammonia levels were assessed in areas of specific interest in relation to vegetation. There are eleven Natura 2000 designated sites within 15km of the application site. These sites are summarised in Table 6.10.2(i) and a map showing their locations relative to the application site is shown in Figure 6.10.2(ii). A full description of the sites can be read on the website of the National Parks and Wildlife Service (www.npws.ie).

Table 6.10.2(i) Designated areas in vicinity of the site

Site Name & Code	Distance	Qualifying Interests	Potential Significant Effects
Moneybeg and Clareisland Bog SAC 002340	3.5km west	• Active raised bog • Degraded raised bogs still capable of regeneration • Depressions on peat substrates of the Rhynchosporion	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Sheelin SPA 004065	3.5km north-west 4.2km downstream	• Great Crested Grebe Podiceps cristatus • Pochard *Aythya ferina*	*Having regards to the hydrological connectivity between the application site and this SPA, then significant*

		• Tufted Duck *Aythya fuligula* • Goldeneye Bucephala clangula • Wetlands & waterbirds	*effects upon this SPA arising from the construction and operation of the farm on this site will be considered further.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
White Lough, Ben Loughs and Lough Doo SAC 001810	6.7km south	• Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. • *Austropotamobius pallipes* (White-clawed Crayfish)	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Bane and Lough Glass SAC 002120	9.1km south-east	• White-clawed crayfish *(Austropotamobius pallipes)* • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Kinale and Derragh Lough SPA 004061	9.4km west	• Pochard *Aythya ferina* • Tufted Duck *Aythya fuligula* • Wetlands & waterbirds	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*

Derragh Bog SAC 002201	9.6km west	• Degraded raised bogs still capable of natural regeneration • Bog woodland	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Lene SAC 002121	10.8km south	• White-clawed crayfish *(Austropotamobius pallipes)* • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*
Lough Derravaragh SPA 004061	13km south	• Whooper swan *Cygnus cygnus* • Pochard *Aythya arina* • Tufted duck *Aythya fuligula* • Coot *Fulica atra* • Wetlands & waterbirds	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
The River Boyne and River Blackwater SAC 002299	13.8km south-east	• River lamprey (*Lampetra fluviatilis*) • Salmon (*Salmo salar*) • Otter (*Lutra lutra*) • Alkaline fens • Alluvial forests with alder *Alnus glutinosa* and ash *Fraxinus excelsior*	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising*

			from emissions due to the proposed development.
The River Boyne and River Blackwater SPA 004232	14km south-east	• Common kingfisher *Alcedo atthis*	*There is no hydrological connectivity between the application site and this SPA, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SPA arising from emissions due to the proposed development.*
Garriskill Bog SAC 000679	14.8km south-west	• Active raised bogs • Degraded raised bogs still capable of natural regeneration • Depressions on peat substrates of the Rhynchosporion	*There is no hydrological connectivity between the application site and this SAC, therefore effects on this site arising from emissions to surface water can be ruled out.* *Atmospheric emissions from the site will decrease due to the change in farm operations. No significant effects upon this SAC arising from emissions due to the proposed development.*

Figure 12.2.2(ii) – The Application Site (Red Dot) in relation to the Natura 2000 Sites within 15km. SACs – Red Hatching; SPAs – Pink Hatching

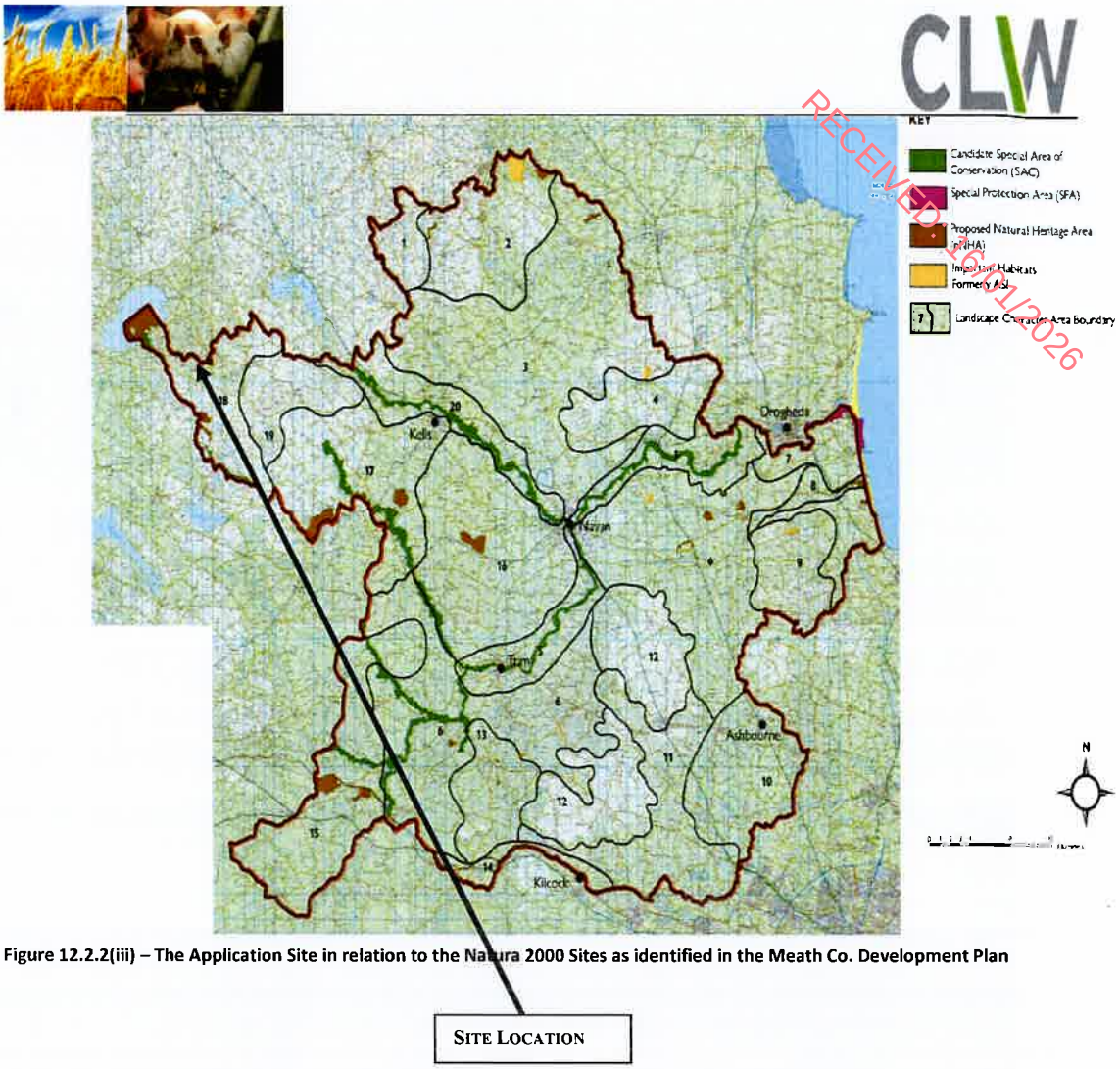

Figure 12.2.2(iii) – The Application Site in relation to the Natura 2000 Sites as identified in the Meath Co. Development Plan

12.3 Predicted/Potential Impacts/Effects, Good Practice Measures and Mitigation measures, and, any Residual Effects

(a) Site and immediate area

As previously described the site and adjoining area is a pig farm site and / or an area immediately adjacent to same that has been intensively managed over a long number of years, and as such the flora and fauna associated with this site has developed in this context. The site has recently been approved for a significant re-development however the development currently under consideration will replace this development and also provide for changes to the management and operation of the farm.

The majority of the land in the surrounding area is used for grass based agricultural production. The flora and fauna associated with this site has developed accordingly as the site has been managed over the years. There are no specific unique habitats on, or adjacent to this site that require specific protection, and/or are likely to be adversely impacted by the proposed development. This proposed development is not anticipated to adversely impact, either directly or indirectly on any NHA, SAC, and/or SPA.