This Report has been cleared for submission to the Director by Senior Inspector Sean O'Donoghue

Signed: Seán O Donoghue ***Date: 20/12/2024***

OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE APPLICATION, LICENCE REGISTER NUMBER P1024-02

TO: DAVID FLYNN DIRECTOR

FROM: Philip Stack, ICER Inspector	**DATE: 20 December 2024**

Applicant:	Doon Farm Enterprises Limited
CRO number:	425804
Location/address:	Doon, Araglin, Kilworth, County Tipperary
Application date:	03 April 2017
Class of activity (under EPA Act 1992 as amended):	6.2: The rearing of pigs in an installation where the capacity exceeds - (b) 2,000 places for production pigs which are each over 30kg
Category of activity under IED (2010/75/EU):	6.6 (b) Intensive rearing of pigs with more than 2,000 places for production pigs (over 30kg)
Main CID:	CID (EU) 2017/302 (15 February 2017). Establishing (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs. All relevant CIDs, BREF documents and legislation are listed in appendices of this report.
Activity description/background: Existing activity for the rearing of pigs in an installation with capacity for 500 sows and 3,500 production pigs.	
Additional information received:	Yes (18 April 2018, 23 October 2018, 22 October 2021, 21 March 2023, 06 February 2024, 12 March 2024, 25 June 2024, 29 July 2024, 17 September 2024, and 04 December 2024)
No of submissions received:	Ten

Environmental Impact Assessment required: Yes	Stage 2 Appropriate Assessment required: Yes
Environmental Impact Assessment Report submitted (EIS): Yes (received 03 April 2017)	Natura Impact Statement (NIS) submitted: Yes (06 February 2024)
Site visit: 02 June 2023	Site notice check: 18 April 2017

1. Introduction

This is an assessment of an application for an Industrial Emissions Directive (IED) licence to carry on an activity under Part IV of the Environmental Protection Agency Act 1992, as amended (hereafter referred to as the EPA Act).

Doon Farm Enterprises Limited is a pig rearing unit located at Doon, Araglin, Kilworth, County Tipperary. The previous licence application by the applicant, (Reg. No. P1024-01), was abandoned by the Agency in accordance with Regulation 19 of the EPA (Industrial Emissions) (Licensing) Regulation 2013 which pertains to withdrawal or abandonment of application for a licence. Details of the site capacity and infrastructure are provided in Table 1.1 below.

Table 1.1. Application details.

	Numbers
Pig categories	
Dry Sows	400
Farrowing sows	100
Weaners	2,355
Production pigs	3,500 Note 1
Total no. animals	6,355

Note 1: This figure includes maiden gilts.

For the purposes of the IED categorisation this equates to 500 sows and 3,500 production pigs.

The applicant is currently operating the installation at full capacity. The applicant and the EPA's Office of Environmental Enforcement (OEE) were notified that this is above the licensing threshold.

A map of the site layout is included in Appendix 1 of this report.

2. Description of activity

The installation is located in a rural location with most development near the installation consisting of dwelling houses and farmyards. The enterprise employs three full-time staff.

The main activities at this installation occur during normal working hours between 07:00 and 18:00. Stock inspections are carried out every day, including weekends and bank holidays and additional essential activities may be undertaken outside of core working hours. The installation operates in accordance with the requirements of the Department of Agriculture, Food and the Marine and under the Bord Bia Pig Quality Assurance Scheme (PQAS).

The pig production process on this farm is typical of many other Irish units. The installation consists of 24 pig houses sub-divided to cater for the different pig categories on-site, along with slurry collection and storage tanks, and ancillary structures and equipment necessary for the accommodation, management and husbandry of the animals, and administration of the unit. The process involves the rearing of stock

specifically bred from the on-site sows for meat production. Pigs will be reared at the installation until they reach the required finishing weight of approximately 100 kg. All houses will be fully cleaned out after each group of pigs is removed.

The type of house used for this activity is a simple closed building of concrete, steel, and prefabricated panel construction, on an impervious concrete base. The houses are thermally insulated, with a computer-controlled ventilation system and artificial lighting. Automatic feeding and ventilation systems operate on a 24-hour basis. The principal inputs to the operation are feed, water, veterinary medicines and energy (electricity, diesel for back-up generator). The main by-product of pig rearing is organic fertiliser (slurry). These are discussed in further detail below.

3. Planning Status

A number of planning applications have been made by the applicant for the area within the installation boundary.

Tipperary County Council has granted planning permission for a number of developments on the site. Details of these planning applications and permissions have been provided in the application form and in Table 3.1 below. There are no development works remaining to be completed.

Table 3.1: A summary of relevant planning permissions granted at the site.

Ref. No.	*Date of grant*	*Description of development*
96/574	19 June 1997	Construction of a 250-sow integrated unit.
07/1368	09 June 2008	Construction of one loose dry sow house, one farrowing house, one weaner house, two finisher houses, a feed mill, and a manure storage basin, to expand to a 500-sow integrated unit.
11/349	01 November 2011	Construction of a dry-sow house.
16/601143	27 July 2017	Retention of the extensions constructed to the fattening houses and weaner houses.
19/600609	27 August 2019	Construction of a loose dry sow house with underground slatted effluent tank.
19/601471	26 March 2020	Construction of a finishing house with underground slatted effluent tank.
23/60114	08 June 2023	Retention of extensions to the second stage weaner house and dry house, and associated site works.
24/60750	02 December 2024	Retention of second stage weaner house extension and all associated site works.

The applicant has submitted the EIS associated with planning permission ref. 07/1368. The Agency has had regard to the reasoned conclusions reached by the planning authority in undertaking its environmental impact assessment of the activity.

Schedule A of the RD limits the number of pigs housed to those proposed in Table 1.1 above. This is the capacity that is specified in the application, in the EIS submitted in support of the application, and in the planning permissions granted for the installation.

4. Environmental Impact Assessment (EIA) Screening

In accordance with section 83(2A) of the EPA Act, the Agency must ensure that before a licence or revised licence is granted, that the application is made subject to an EIA, where the activity meets the criteria outlined in section 83(2A)(b) and 83(2A)(c).

In accordance with the EIA Screening Determination, the Agency has determined that the activity is likely to have a significant effect on the environment, and accordingly is carrying out an assessment for the purposes of EIA.

The activity exceeds the following threshold in Part 1 of Schedule 5 of the Planning and Development Regulations 2001, as amended:

- 17(b) Installations for the intensive rearing of pigs with more than 3,000 places for production pigs (over 30 kilograms).

An EIS was submitted to the Agency as part of the application on 03 April 2017. This is addressed in the 'EIA' Section later in this report.

5. Best Available Techniques and CID

BAT for the installation was assessed against the BAT conclusions contained in Commission Implementing Decision of 15 February 2017 establishing BAT conclusions for the intensive rearing of poultry or pigs (2017/302/EU) and in any other relevant BREF documents specified in the appendices of this report. A detailed BAT assessment was carried out by the applicant and is included in Section 4.7 of the application form and in additional information submitted in support of the application. Additional conditions have been incorporated into the RD to address BAT Conclusions and these are detailed throughout this report. Any relevant BAT-AELs have been specified in the emissions sections of this report.

I consider that the applicable BAT Conclusion requirements are addressed through the technologies and techniques as described in the application, as well as the conditions and limits specified in the RD.

6. Emissions

6.1 Emissions to Air

This section addresses emissions to air from the installation and the environmental impact of those emissions.

6.1.1 Fugitive Emissions

The only fugitive emissions from this sector are dust, odour and ammonia. These are discussed below. The nearest third-party dwellings potentially affected by fugitive emissions are detailed in Table 6.1 below.

Table 6.1: Nearest third-party residential dwellings

Distance from Site	Direction from Site
400 m	north-west
566 m	west
568 m	south-east

6.1.2 Channelled Emissions to Air

There are no main emission points to air from the installation.

6.1.3 Dust

Dust may arise from the expulsion of warm air from ventilation systems on-site, vehicle movements, removal of organic fertiliser, feed milling, filling of meal storage bins and the loading and unloading of animals during periods of dry weather. Pigs are to be housed on fully slatted floors, therefore negating the need for a bedding material, and consequently limiting dust from bedding. Minimal dust impact may occur locally within the installation boundary during site operations.

No complaints or submissions were received in relation to dust for this site by the Agency or by the applicant.

The applicant has stated that good housekeeping at the installation will minimise dust from the installation. The RD specifies the following to prevent the generation and emission of dust:

- To use one or a combination of the techniques listed in BAT 11 to prevent or reduce dust emissions from the animal houses (Condition 6).

Dust is not expected to be a significant issue beyond the installation boundary.

6.1.4 Odour

Odour arising from the activity could have the potential to cause impairment to those living nearby. The nearest third-party residential dwellings are given in Table 6.1 above. The land in the immediate vicinity of the installation is farmland.

The animal houses will be cleaned at the end of each batch, with the slurry removed from below the houses on a frequent basis to the external slurry store. Houses will be stocked at optimum levels and adequately ventilated, to minimise odour emissions. The ammonia mitigation techniques described in the next section will also serve to minimise odour production at the installation.

No complaints or submissions relating to odour have been received by the Agency or by the applicant.

The applicant has proposed a number of mitigation measures to be compliant with BAT, which will reduce odour emissions from the installation, namely frequent removal of slurry to an external store in Houses 2.1, 10.1, 10.2, and B, and a slurry cooling system in House A. The applicant additionally proposed to reduce the crude protein percentage in the pig feed. Research has demonstrated that reducing the crude protein concentration of the animal feed, leads to approximately a 10% reduction in odour for every reduction of 1% in the feed crude protein concentration.

The applicant has submitted site specific odour modelling for the installation at the proposed stocking level and including the proposed odour abatement measures, which indicates that the installation will be able to meet the 3 OUe/m^3 odour benchmark required for previously unlicensed installations at all nearby sensitive receptors (see Figure 6.1). Therefore, odour is not expected to be a significant issue.

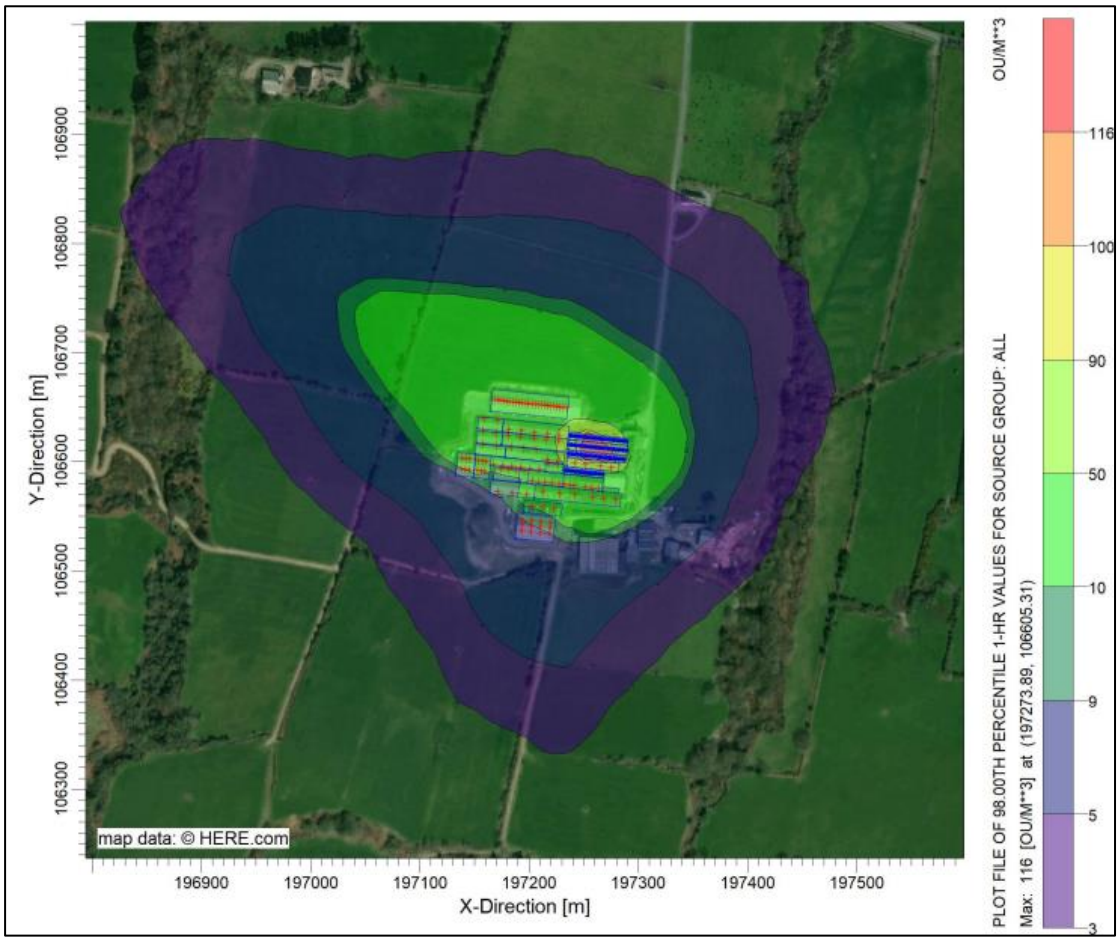


Figure 6.1. Maximum 98th percentile 1-hour ground-level odour concentration (OUe/m^3) predicted for the installation for five years of modelled data.

The RD specifies the following odour control conditions:

- That odour from the activity shall not result in an impairment of, or an interference with amenities or the environment beyond the installation boundary (Condition 5).
- To use a diet formulation and nutritional strategy to reduce the total nitrogen and phosphorus excreted, as per BAT 3 and BAT 4 (Condition 6). The crude protein content of the feed is limited to 15% for dry sows and 16% for all other classes of pigs. (Condition 6 and Schedule C).
- To use a combination of the techniques listed in BAT 13 to prevent/reduce odour emissions/impact from the site (Condition 6).
- To install a slurry cooling system and heat exchanger in House A to recover heat for use on-site, as per BAT 30 within 12 months of the date of grant of this licence (Condition 6, and Schedule C).
- Frequent slurry removal from Houses 2.1, 10.1, 10.2, and B within 12 months of the date of grant of this licence (Condition 6).
- That the applicant carries out an odour survey of the site operations as required by the Agency or in response to any complaint received (Condition 6).
- That the licensee prepares, maintains and implements an odour management plan, and incorporates it into the Environmental Management System (EMS) for the installation, as per BAT 12 (Condition 6).

- An odour management plan shall be submitted within 3 months of the date of grant of this licence, outlining odour reduction/abatement measures appropriate to the site and be reviewed annually (Condition 6).
- Should odour become an issue on-site, the RD includes a condition whereby the licensee can be required to reduce stock or install abatement to reduce odour emissions (Condition 6).
- That carcasses stored on-site will be stored in covered leak-proof containers and transported off-site in covered, leak proof containers at least fortnightly (Condition 8).

6.1.5 Ammonia

The report *"Ireland's Informative Inventory Report 2024*[1]*"* (EPA, 2024) identifies agriculture as the primary contributor (99.4%) of Irish ammonia emissions in 2022, emitting a total of 127.8 kilotonnes (kt) of ammonia in that year. According to that report, ammonia emissions from the pig sector in 2022 accounted for 6.1 kt. The Department of Agriculture, Food and the Marine (DAFM) has published a '*Code of Good Agricultural Practice for reducing Ammonia Emissions from Agriculture*[2]*'*, as required by the National Emission Ceiling Directive (NECD).

This installation will emit approximately 13.9 tonnes of ammonia per annum.

Ammonia emissions from this activity may have the potential to impact sensitive receptors in the vicinity of the installation. The Agency screened the impact of ammonia emissions and nitrogen deposition at European sites using a screening model (SCAIL Agriculture[3]) which indicated potentially elevated ammonia emissions and nitrogen deposition. The model results indicate the potential for the pig rearing process to contribute to ammonia emissions and nitrogen deposition at European sites. The SCAIL Agriculture screening model is conservative.

The Agency has issued a guidance document to assist applicants and licensees in undertaking an assessment of the impacts of ammonia and nitrogen titled "*Assessment of the impact of ammonia and nitrogen on Natura 2000 sites from intensive agriculture installations*" (EPA, March 2023[4]).

The applicant submitted a full site-specific model (not a screen model), as part of the completion of a Natura Impact Statement (NIS), using more refined details in accordance with the requirements of AG4[5]. The model indicated no significant impacts in the Blackwater River (Cork/Waterford) SAC (002170), Lower River Suir SAC

[1] https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/IIR_Ireland_2024v1.pdf
[2] https://www.gov.ie/en/publication/9a6c6-code-of-good-agricultural-practice-for-reducing-ammonia-emissions-from-agriculture/
[3] SCAIL Agriculture is a web-based screening tool available at http://www.scail.ceh.ac.uk/
[4] https://www.epa.ie/publications/licensing--permitting/industrial/ied/Assessment-of-Impact-of--Ammonia-and-Nitrogen-on-Natura-sites-from-Intensive-Agriculture-Installations-2023.pdf
[5] Air Dispersion Modelling from Industrial Installations Guidance Note (AG4): https://www.epa.ie/publications/compliance--enforcement/air/air-guidance-notes/epa-air-dispersion-modelling-guidance-note-ag4-2020.php

(002137), Galtee Mountains SAC (000646) Nier Valley Woodlands SAC (000668) and Blackwater Callows SPA (004094).

The applicant proposed the following in order to meet the requirements of BAT (BAT 3 (nutritional strategy to reduce nitrogen excretion) and BAT 30 (reduction of ammonia emissions to air from each pig house):

- Application of nutritional techniques to reduce the amount of nitrogen, and accordingly, ammonia produced by the pigs. BAT 3 requires the applicant to employ at least one of a number of techniques to reduce nitrogen emissions from the animals.
    - The applicant has stated that they will reduce the crude protein content of the animal feed. According to the BREF document for this sectoral CID, for each 1% decrease in the protein content of animal feed, ammonia emissions can be decreased by 5-15%. The RD limits the crude protein content of the animal feed to a maximum of 15% for dry sows and 16% for all other pig types on-site (Condition 6 and Schedule C).
    - Multiphase feed will also be used by the applicant. The BREF document details various reductions when compared to single phase feeding, dependent on the number of phases, feed types and growth stage of the animals. The applicant has stated that they will use multiphase feeding (Condition 6).
- In order to meet the BAT 30 requirements, the applicant will use the following techniques in the animal houses:
    - The utilisation of slurry cooling in the under-house slurry tank in House A, with heat reused elsewhere on the site. Slurry cooling systems have demonstrated an ability to substantially reduce ammonia (and odour) emissions from slurry in the pits under pig houses when cooled to 12℃ or lower[6].
    - Frequent removal of slurry from Houses 2.1, 10.1, 10.2, and B, and transfer to off-site storage. As there is no on-site external slurry storage capacity, the slurry storage capacity of Houses 2.1, 10.1, 10.2, and B shall be reduced to guarantee frequent slurry removal and ensure compliance with BAT.
    - The utilisation of a deep pit combined with the above combination of nutritional management techniques in the remaining pig houses.

The nutritional and slurry management standards and emission factors are specified and required in Conditions 3 and 6, and Schedule C of the RD. Combined pig numbers are limited by housing system (Schedule A).

All of the above techniques have been incorporated into the ammonia modelling provided by the applicant. In the absence of those nutritional and slurry management techniques, ammonia emissions from the installation would be approximately 16.6 tonnes per annum.

[6] Reference Document on the Best Available Techniques for the Intensive Rearing of Poultry or Pigs, July 2017.

Qualifying interests in European sites will not be affected by ammonia emissions from the installation, due to the distance between the installation and the designated sites, the type and physical characteristics of the designated sites, and associated dispersion/mitigation techniques proposed by the applicant.

The applicant has stated that the design of the buildings, adherence to good management practices, and implementation of the required mitigation measures will reduce ammonia emissions from the installation. The RD specifies the following additional ammonia minimisation conditions:

- To establish, maintain and implement an Ammonia Management Programme within three months of the date of grant of the licence and, in accordance with BAT 23, undertake an estimation/calculation of the reduction in ammonia emissions from the activity achieved by implementing BAT (Condition 5).
- To complete a test programme for the housing system to establish the criteria for operation of the slurry cooling system (Condition 6).
- To complete an estimation of ammonia emissions from the pig houses in accordance with BAT 25 (Schedule B).

The emission limits in Schedule B.1 are in accordance with those set out in the CID. The ELVs applied are based on those modelled in the impact assessment and are towards the middle and upper of the range set out in the CID.

The potential for ammonia emissions from the landspreading of pig slurry is covered in the Organic Fertiliser section later in this report.

6.2 Emissions to Water and Ground

6.2.1 Emissions to Surface Waters

There are no direct process emissions to surface waters from this activity.

6.2.2 Emissions to ground/groundwater

There are no direct process emissions to ground/groundwater from this activity. The applicant states in the application that there has been no historical contamination of groundwater at the site.

6.2.3 Other emissions to ground/groundwater

There is an existing septic tank and percolation area. The RD (Condition 3) includes a standard condition which requires the applicant to provide and maintain a wastewater treatment plant for the treatment of sanitary effluent and that the waste water treatment system and percolation area shall satisfy the criteria set out in the *Code of Practice Waste Water Treatment and Disposal Systems (Population Equivalent ≤ 10)* published by the EPA.

6.3 Storm Water Discharges

Storm water arises on-site from rainwater collected from clean yards and from the roofs of buildings.

All clean storm water is diverted away from soiled areas of the site by a storm water collection system around each house and is diverted by gravity for discharge via three existing discharge points (SW1, SW2 and SW3) and one proposed discharge point (SW4) into open drains or soak pits. All of the existing discharge points must have a

silt trap installed within three months of the date of grant of this licence. The proposed discharge point, SW4, will have a silt trap installed prior to discharge.

The table below gives details on the installation's storm water discharges to ground, the type of on-site abatement, as well as details of the receiving water.

Table 6.2: Stormwater discharge point details

Discharge Reference	Monitored parameters (monitoring frequency)	Abatement	Drainage areas	Discharging to
SW1	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Open drain
SW2	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Soak pit
SW3	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Open drain
SW4	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Soak pit

SW1 and SW4 discharge to field drains to the south of the installation and SW3 discharges to the west of the installation. In each case, the drains flow to unnamed streams, which join the Araglin (Blackwater) River approximately 0.5 km or 0.8 km respectively downstream of the installation. The Araglin (Blackwater) River currently has a WFD status of 'good' (waterbody code: IE_SW_18A030080). There are no identified drinking water abstraction points on the Araglin (Blackwater) River for at least 10 km downstream of the installation.

The installation is located within the Araglin Ground Waterbody (IE_SW_G_001), which currently has a WFD status of good.

The storm water discharged from the installation should be uncontaminated and, therefore, should have no qualitative impact on receiving waters. The only period during which there is potential for contamination of surface waters is during removal of organic fertiliser (pig slurry) and during the loading or unloading of animals. Most movement of animals is via covered slatted passages and loading directly on to trailers, which separates clean and soiled waters, minimises the quantity of soiled water produced and keeps yard areas clean. The areas around the animal houses where the loading and unloading occurs will be concreted and designed in such a way that any pig slurry will be diverted to the slurry storage tanks under the houses. All soiled water from the washing of the houses will be diverted to the organic fertiliser storage tanks under the animal houses.

The applicant has stated that the infrastructure, adherence to good management practices, and implementation of the required mitigation measures will mitigate the risk of storm water contamination.

The RD requires the following in relation to storm water management:

- That all uncontaminated storm water be diverted to the storm water drainage system (Condition 6).

- That an up-to-date site drainage map be maintained on-site, and that the storm water drainage system be inspected weekly and maintained properly at all times (Condition 6).
- That a storm water/rainwater collection and drainage system for all pig houses on-site be provided and maintained (Condition 6).
- That inspection chambers at the outlets of the storm water drainage system be provided and maintained within three months of the date of grant of the licence (Condition 3).
- That an inspection chamber be fitted to new storm water discharge points prior to commencement of any discharge (Condition 3).
- That a silt trap be provided and maintained on all existing storm water discharge points within three months of the date of grant of the licence, and that any new storm water discharge points shall be fitted with silt traps in advance of discharge (Condition 6).
- That the storm water discharge is visually inspected weekly and monitored for Chemical Oxygen Demand (COD) or Biological Oxygen Demand (BOD) as required by the Agency, in accordance with Schedule B.5 *Storm Water Discharge Monitoring.*
- Schedule B.5 *Storm Water Discharge Monitoring* of the RD further requires the applicant to submit the exact location of discharge point SW4 upon installation and prior to commencement of the discharge.

The RD contains standard conditions in relation to the storage and management of materials and wastes. The RD also requires that accident and emergency response procedures are put in place. The controls pertaining to accidents and emergencies are addressed in the Prevention of Accidents section later in this report.

6.4 Noise

The main sources of noise at the installation include the operation of equipment, ventilation systems, the back-up generator, vehicle deliveries/collections, and animals. As mentioned earlier, the nearest third-party residential dwelling is approximately 400 m away.

There has been no history of noise complaints at the installation, and none have been received by the Agency or the applicant. No submissions have been received outlining that noise is a cause for concern from the installation.

Noise emissions will primarily be minimised by implementing good management practices. Noise conditions and emission limit values, which apply at the noise-sensitive locations, have been included in the RD.

- Noise from the installation shall not exceed the limit values set out in Schedule *B.4 Noise Emissions* of the RD at the noise sensitive locations (Condition 4).
- The use of one or a combination of the techniques listed in BAT 10 to prevent/reduce noise emissions from the site (Condition 6).
- A requirement that a noise survey be carried out of the site operations, as required by the Agency (Condition 6).

7. Waste Generation

Certain wastes are generated on-site as part of the licensable activity. Waste generated on-site will mainly comprise of spent fluorescent tubes, fallen stock (animal carcasses), veterinary/chemical waste containers and general waste. The total quantities estimated to be generated are given in Table 7.1 below. The applicant will employ a

number of measures at the installation for the prevention and/or minimisation of waste.

Table 7.1: Estimated waste generation

Waste Type	Estimated quantity (tonnes) per annum
Animal Carcasses	20
General Waste	<1
Veterinary Waste	0.010
Fluorescent Light Tubes	5-10 tubes approx.

In accordance with the hierarchy specified in the IED, waste generated at the site will, in order of priority, be minimised, be prepared for re-use, recycling, recovery or disposal. Conditions relating to waste management have been included in Condition 8 of the RD. Carcasses will be stored temporarily on-site in covered skips, before being transported to an appropriately licensed installation.

A fly and rodent control programme is in place to cover the existing installation and will be extended to cover the expanded site. The programme as implemented will be in line with Bord Bia and Department of Agriculture, Food and The Marine requirements.

Condition 3 of the RD requires the applicant to establish, maintain and implement a pest control programme in accordance with relevant DAFM guidelines. These guidelines take account of the requirements of the Campaign for Responsible Rodenticide Use (Ireland).

8. Organic Fertiliser

The installation will necessarily generate organic fertiliser (pig slurry, including soiled/wash water). Details are given in Table 8.1 below.

Table 8.1: Organic fertiliser

Quantity produced per annum	8,278 m^3
Number of storage tanks/stores on-site	22
Total storage capacity on-site (ex-freeboard)	12,614 m^3
No. weeks storage on-site	71
End use off-site	Landspreading by customer farmers

Soiled/wash water is generated by the activity during routine cleaning and at the end of each batch of pigs. Once the pigs are removed, the houses are washed down, with the resulting wash water being washed through the slatted floors into the tanks below, adding to the total volume of organic fertiliser produced. After washing, the houses are allowed to dry and then disinfectant applied.

Condition 8 of the RD requires that the applicant maintains a record of organic fertiliser sent off-site for use on land or for compost production in accordance with the

requirements of the Nitrates Regulations[7]. The applicant will be required under the licence to submit to DAFM by the 31st of December annually details in relation to the quantity of organic fertiliser (pig slurry) exported (Record 3 form) off-site. The record must also be maintained at the installation for inspection by the Agency, Local Authority or DAFM. DAFM may use the record of export of organic fertiliser to identify the recipient of the organic fertiliser and the quantity received.

The Animal By-product (ABP) Regulations[8] impose legal requirements on the applicant, the 'commercial haulier' and the user of the organic fertiliser. These requirements include use of a 'commercial document' to record details required under the regulations. The applicant will be required to receive a completed copy of the 'commercial document' from the transporter confirming the final destination.

There will be no landspreading of organic fertiliser conducted and/or permitted within the installation boundary, and consequently there will be no additional ammonia emissions from landspreading activities within the installation boundary. It is important to note that the IE licence relates to the site of the activity for which the licence application is made and does not extend to the lands on which organic fertiliser may be used as fertiliser. The Nitrates Regulations specify when organic fertiliser can be applied to land and the application rates, and these are enforced by the DAFM and Local Authorities.

Under the ABP Regulations, pig slurry is categorised as a category 2 Animal By-product and the options for its disposal/recovery are set out in Article 13 of Regulation 1069/2009, as amended.

The organic fertiliser produced by the animals will be contained temporarily in the shallow tanks under Houses 2.1, 10.1, 10.2 and B, and longer term in the deep pits under all other, older houses. The slurry from Houses 2.1, 10.1, 10.2 and B will be removed frequently to external off-site storage to reduce ammonia and odour emissions. The RD contains a condition requiring a reduction in the capacity of the tanks under Houses 2.1, 10.1, 10.2 and B to guarantee that slurry is frequently removed to the external store. The loading and unloading of animals and the areas around the houses will be concreted and designed such that any pig manure will be diverted to the slurry storage tanks under the houses during animal loading and unloading.

The applicant has identified 16 farmers who are available/seeking to accept organic fertiliser from the installation as fertiliser for their farms (841 usable acres in the surrounding area of County Cork, County Tipperary and County Waterford). The applicant has calculated that these farms have a need for up to 9,994 m^3 organic fertiliser per year based on the nitrogen balance for the farms. This equates to approximately 120% of the estimated volume of organic fertiliser produced on-site.

[7] S.I. No. 113 of 2022 European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022.
[8] EU Animal By-Product Regulation (EC) No. 1069 of 2009 and Regulation (EU) No. 142 of 2011, given legal effect by The European Union (Animal By-Product) Regulations 2014 (SI No. 187/2014), laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal By-Products Regulation) as amended.

The Nitrates Regulations (Article 10(1)) require that a minimum of 26-weeks' storage capacity for organic fertiliser is provided.

The quantity of nitrogen and phosphorus generated by the activity at the proposed licence capacity is approximately:

- 17,500 kg N per year, and
- 4,000 kg P per year,

based on figures available in the Nitrates Regulations (annual nutrient excretion rates for livestock)

The RD contains the following additional requirements relating to the management of pig slurry:

- To monitor the total nitrogen and phosphorus excreted in manure annually, in accordance with BAT 24 (*Schedule B.8*).
- That all storage tanks are integrity assessed within three months of date of grant of this licence and before utilisation for proposed tanks, and at least once every three years thereafter (Condition 6).
- That a combination of the techniques listed in BAT 6 be used to reduce the generation of wash water on-site (Condition 6).
- That one or a combination of the techniques listed in BAT 7 be used to reduce the emissions to water from wash water on-site (Condition 6).
- That a freeboard of at least 200 mm from the top of covered organic fertiliser storage tanks and 300 mm from the top of uncovered organic fertiliser storage tanks is maintained, as a minimum, at all times and that this is clearly indicated in the tank (Condition 6).

9. Energy Efficiency and Resource Use

The operation of the installation involves the consumption of fuel, electricity and resources. The proposed quantities to be used in a 500-sow integrated unit are given below.

Table 9.1: Estimated resource usage

Resource	Quantity per annum
Electricity	214,000 kWh
Water (off-site well) Water Abstraction registration required:	13,000 m^3 Yes
Feed	3,750 t
Kerosene/Diesel	Back-up generator only

The applicant employs a variety of technologies to maximise the efficient use of energy within the installation, including regular preventative maintenance of equipment, use of energy efficient lighting systems and thermal insulation.

The primary source of water for the activity is a well located outside the licensed boundary. The installation is located on the Araglin Groundwater Waterbody (IE_SW_G_001), which currently has a WFD status of good.

In accordance with the European Union (Water Policy) (Abstractions Registration) Regulations 2018 (S.I. No. 261 of 2018) those who abstract 25 m^3 of water or more per

day are required to register their water abstraction with the EPA. The applicant is required to register their abstraction.

The RD specifies that the applicant undertake the following in relation to energy and resource efficiency:

- Annual maintenance of the animal house heating systems and the back-up generator (Condition 3).
- To install and maintain a water meter on all water supplies (Condition 3).
- To use a combination of the techniques listed in BAT 8 (efficient use of energy) and BAT 5 (efficient use of water) (Condition 7).
- To undertake an assessment of the efficient use of resources and energy in all site operations, undertake an energy audit, repeated at intervals as required by the Agency with the recommendations of the audit being incorporated into the Schedule of Environmental Objectives and Targets as outlined in Condition 2 (Condition 7).

10. Prevention of Accidents

A certain amount of accident risk is associated with the licensable activity. For this installation, potential accidents and measures for prevention/limitation of consequences are given in the table below.

Table 10.1: Potential accidents and measures for prevention/limitation of consequences

Potential for an accident or hazardous/emergency situation to arise from activities at the installation	- Surface water and/or ground/groundwater contamination during pig removal and washing. - Surface water and/or ground/groundwater contamination by spillage of organic fertiliser, fuel or other polluting materials. - Surface water and/or ground/groundwater contamination due to leaks from tanks. - Accidental diversion of wash water to storm water drainage system. - Accidental emissions of noise, dust or odour such as to cause nuisance outside the site boundary.
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the installation	- The provision and maintenance of adequate wash water and slurry storage facilities. - The storage of potentially polluting liquids in bunded areas. - The provision of concrete aprons around wash water areas. - The protection of fuel tanks from accidental damage. - The separation of wash water and clean storm water, with wash water diverted directly to the organic fertiliser storage tanks under the pig houses.
Additional measures provided for in the RD	- Integrity assessment and maintenance of the slurry storage tanks and network as required (Condition 6).

	- The regular visual examination and inspection of the storm water discharge point(s) and storm water drainage system (Condition 6). - The provision of more than 26-weeks organic fertiliser storage capacity (Condition 3). - Accident prevention and emergency response procedures requirements (Condition 9). - A preventative maintenance programme (Condition 2).

The risk of accidents and their consequences, and the preventative and mitigation measures listed above, have been considered in full in the assessments carried out throughout this report. It is considered that the conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of such an event should it occur.

11. Cessation of Activity

A certain amount of environmental risk is associated with the cessation of any licensable activity (site closure). The applicant has provided a list of measures to be taken in the event of site closure/cessation of activity. These measures are listed in attachment D of the application form. Condition 10 of the RD requires the proper closure of the activity with the aim of protecting the environment.

Baseline Report

Where an activity involves the use, production or release of Relevant Hazardous Substances, and having regard to the possibility of soil and groundwater contamination at the site of the installation, the IED requires operators to prepare a baseline report. A baseline screening assessment was undertaken by the applicant, in accordance with Stages 1 to 3 of European Commission Guidance[9].

The screening assessment determined that, considering the type and quantity of substances used as part of the activity, the location of these substances on the site, in view of the soil and groundwater characteristics, and the measures to be taken to prevent accidents and incidents, the possibility of soil and groundwater contamination at the site of the installation is considered to be low. I am satisfied that a full baseline report (stages 4 to 8) is not required.

Nonetheless, upon cessation of the activity, Condition 10 of the RD requires the applicant to take certain measures to ensure that there is, to the satisfaction of the Agency, no remaining risk of environmental pollution at the site.

[9] European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions.

12. Fit and Proper Person

Technical Ability

The applicant has provided details of his qualifications, technical knowledge and experience of key personnel. It is considered that the applicant has demonstrated the technical knowledge required to operate this installation.

Legal Standing

Neither the applicant nor any relevant person has relevant convictions under the EPA Act, or under any other relevant environmental legislation.

ELRA, CRAMP and Financial Provision

The licence category and proposed installation were assessed for the requirements of Environmental Liabilities Risk Assessment (ELRA), Closure, Restoration and Aftercare Management Plan (CRAMP) and Financial Provision (FP), in accordance with Agency guidance. Under this assessment it has been determined that ELRA, CRAMP and FP were not required.

Fit and Proper Conclusion

It is my view that the applicant can be deemed a Fit and Proper Person for the purpose of this application.

13. Submissions

While the main points raised in the submissions are briefly summarised in the table below, the original submission should be referred to at all times for greater detail and expansion of particular points.

The issues raised in the submissions are noted and addressed in this Inspector's Report and the submissions were taken into consideration during the preparation of the Recommended Determination (RD).

Table 13.1: Submissions summary

1.	**Name & Position:** Mr. Ray Parle, Principal Environmental Health Officer	**Organisation:** Environmental Health Department, HSE	**Date received:** 08 May 2017
	Issues raised: *The HSE submission is based on a site visit report by Mr. Ray Parle, Environmental Health Officer and conversations with the applicant. It provides a summary of his findings. The submission makes a number of observations in relation to the licence application. The topics raised include site location; surface and ground water; soiled water (wash water), pig slurry and waste management; noise; and odour. The HSE also confirmed in their submission that they have not received any complaints in relation to the existing activity at the installation to date. The submission refers only to those areas within the remit of the HSE.* *Specific recommendations and observations highlighted by the HSE include:* • *Noise and vibration during construction and operational phase.* • *Air quality during construction, operational phase and pig slurry application to land* • *Water quality during construction and operational phase*		

	• *Pest control* • *Legionella control* **Agency response:** The main issues raised in the submission are noted and addressed in the relevant sections of the Inspector's Report. • Noise is addressed in the relevant sections of this report. The installation is very unlikely to produce significant quantities of vibration at any time. • Air quality is addressed in the relevant sections of the report. Modelling submitted in support of the application indicates that odour is not predicted to be within acceptable levels at nearby sensitive receptors. The RD contains a number of conditions to control odour and ammonia emissions from the installation. • Landspreading of organic fertiliser occurs outside of the licensed boundary and will be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations[10]. This is enforced by the DAFM and the Local Authorities. The RD includes a number of conditions in relation to the storage of slurry and the protection of waters. The 'Emissions to Water and Ground', 'Storm Water Discharges', and 'Organic Fertiliser' sections of this report contain more information on this. • The RD includes conditions in relation to storm water discharges from the site. • Pest control is addressed in the 'Waste Generation' Section of this report. • Management of Legionella risk is outside the remit of the EPA.		
2.	**Name & Position:** Peter Sweetman	**Organisation:** Wild Ireland Defence CLG	**Date received:** 04 October 2017
	Issues raised: *The submission references Article 6.3 of the Habitats Directive:* *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or project shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*		

[10] EU Animal By-Product Regulation (EC) No. 1069 of 2009 and Regulation (EU) No. 142 of 2011, given legal effect by The European Communities (Animal By-Product) Regulations 2014 (SI No. 187/2014), laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation) as amended.

	And CJEU Case C-127, which found that: *"With each licence entailing a new assessment both of the possibility of carrying on that activity and of the site where it may be carried on, falls within the concept of 'plan' or 'project' within the meaning of Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora."* **Agency response:** It should be noted at the outset that the IE licence application identifies that the site boundary only relates to the site of the pig rearing and directly associated activities which occur within that defined site boundary. The use of organic fertiliser as fertiliser beyond the site boundary cannot be controlled by a condition of an IE licence which may be granted for the pig rearing activity because it does not occur within the defined site boundary. The RD includes a number of conditions in relation to the storage of slurry and the protection of waters. The 'Organic Fertiliser' section of this report contains more information on this. I have addressed the potential for significant effects from the project on European sites in the Appropriate Assessment section of this report. Appendix 1 lists the European sites assessed, their associated qualifying interests and conservation objectives. I have considered all of the documents submitted with the licence application and all submissions and observations made on the licence application and, having considered the processes and emissions associated with the activity (as now outlined throughout this IR), a screening for Appropriate Assessment was undertaken. This assessment determined that the activity is not directly connected with or necessary to the management of any European site and through setting out of a set of reasons, determined that an Appropriate Assessment of the activity is required, and for this reason required the applicant to submit a Natura Impact Statement. Qualifying interests and conservation objectives of each individual site were examined as part of that assessment. The Appropriate Assessment section details the results of the appropriate assessment screening and the appropriate assessment conducted as part of the licence application. In light of the above, it is considered that the appropriate assessment screening carried out by the Agency is complete and has no gaps or lacunae.		
3.	**Name & Position:** Peter Sweetman	**Organisation:** Peter Sweetman & Associates	**Date received:** 17 July 2018
	Issues raised: *The submission provides a copy of judgement of the 12 April 2018 by the CJEU, in relation to Case C-323/17 and quotes the ruling from that judgement that:* *"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the*		

	measures intended to avoid or reduce the harmful effects of the plan or project on that site." **Agency response:** In the Appropriate Assessment section of this report, I have addressed the potential for significant effects of the project on European sites and have detailed the results of an Appropriate Assessment screening conducted as part of the licence application. There are five European sites within 25 km of the installation. Any European sites more than 25 km distance from the installation was considered to be falling outside of the potential zone of influence of the activity, so it was not necessary to consider them further. This assessment determined that the activity is not directly connected with or necessary to the management of any European site and through setting out of a set of reasons, determined that an Appropriate Assessment of the activity is required, and for this reason required the applicant to submit a Natura Impact Statement. Qualifying interests and conservation objectives of each individual site were examined as part of that assessment. The Appropriate Assessment section details the results of the appropriate assessment conducted as part of the licence application.

4.	**Name & Position:** Peter Sweetman	**Organisation:** Peter Sweetman & Associates	**Date received:** 28 January 2019
	Issues raised: *The submission refers to CJEU case references C-258/11, C-164/17, C-323/17, C-461/17 and joined cases C-293/17 and C-294/17, and states the following:* *"Any licence granted by the EPA for the following applications must comply with the Habitats and Birds Directives and must comply with the following judgements of the CJEU."* **Agency response:** The requirements of the EIA Directive (2011/92/EU as amended by 2014/52/EU) and the Habitats Directive (92/43/EC) and Birds Directive (2009/147/EC) are considered as part of the Environmental Impact Assessment and Appropriate Assessment sections of this report. In addition, the judgments of the Court of Justice of the European Union form part of this assessment, as appropriate. Judgment reference numbers C-293/17 and C-294/17 relate to habitat protection and the impacts from nitrogen deposition. The legislation governing ammonia emissions from livestock installations across Member States varies and is not directly comparable. The Judgment references C-293/17 and C-294/17 relate to the system in The Netherlands, where a new approach was adopted in 2015 in the form of a 'programmatic' (or integrated) approach to nitrogen/ammonia (Programmatische Aanpak Stikstof - PAS). This approach deals with the assessment requirements of the Habitats Directive Article 6(3) at a 'programmatic' level considering general reduction trends as well as (planned)		

	management and restoration measures with the purpose to establish a "room for development" for subsequent permits. The PAS has been successfully challenged in the courts (C-293/17 & C-294/17) on the grounds that it is not in accordance with the Habitats Directive. This approach is not used in Ireland. See also the section on appropriate assessment later in this report.		
5.	**Name & Position:** Peter Sweetman	**Organisation:** Wild Ireland Defense CLG	**Date received:** 13 October 2020
	Issues raised: *The issues raised in the submission are as follows:* *In the submission Mr. Sweetman indicated that "it is not possible to perform an Appropriate Assessment Screening to the standard required by Finlay J in Kelly -v- An Bord Pleanála [2014] IEHC 400 (25 July 2014). Without the full information as to the method and place of disposal of the waste.* *It is our submission that the EPA Acts as interpreted by the EPA are not in compliance with the Environmental Impact Assessment Directive Article 11."* **Agency response:** I am satisfied that I have sufficient information available to complete an Appropriate Assessment Screening, to assess in view of best scientific knowledge and the conservation objectives of the site, if the project individually or in combination with other plans or projects is likely to have a significant effect on a European Site. An Appropriate Assessment Screening Determination was issued on 21 April 2020, which included specific reasons for determining that a Stage 2 Appropriate Assessment was required, and subsequently a NIS was requested and submitted. The Appropriate Assessment section of this report details the results of the appropriate assessment screening conducted as part of the licence application. The applicant has provided sufficient information regarding the wastes produced by the activity, as well as their disposal off-site. More information on waste can be found in the waste section of this report. There is sufficient information to conclude beyond reasonable scientific doubt that the disposal of waste arising from the proposed project will not have any adverse effects on the integrity of any European site. I am satisfied that the EPA's interpretation of the EPA Act is in accordance with Article 11 of the EIA Directive, and members of the public have access to a review procedure that is impartial, fair, equitable, timely and not prohibitively expensive. Information on the EPA's licensing process, including access to administrative and judicial review procedures, is available to the public on the EPA's website, at https://www.epa.ie/our-services/licensing/industrial/industrial-emissions-licensing-ied/industrial-emissions-licensing-process-explained-/. As part of this licence assessment process, including EIA and AA, regard has been given to all submissions received.		

6.	**Name & Position:** Peter Sweetman	**Organisation:** Wild Ireland Defence CLG	**Date received:** 27 October 2022
	Issues raised: *The CJEU has found that compliance with European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2017 (S.I. 605 of 2017) cannot be considered a mitigation measure when conducting an appropriate assessment.* **Agency response:** The submission did not provide a reference to the Court of Justice of the European Union (CJEU) case to which it refers. However, the judgments of the CJEU form part of this application assessment, as appropriate. The landspreading of organic fertilizer was considered in carrying out Appropriate Assessment and regard was had to the regulatory systems in place, i.e. European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022 (S.I. 113 of 2022).		
7.	**Name & Position** Aislinn Byrne	**Organisation:** Member of the public	**Date received:** 14 December 2022
	Issues raised: *The issues raised in the submission are as follows:* "*I am objecting to the following applications on the grounds that factory farming, or intensive agriculture, is seriously damaging the environment. The systems currently in place in the respective counties of the applicants are insufficient to deal with the current level of animal agriculture. Approving licenses for additional intensive farming would be wilfully destroying the land and the environment and putting peoples health at risk.* *Separately it is cruel to farm animals in this manner. It's raises questions around the health of the animals and therefore the end product that is being sold to humans. It is putting smaller farmers out of business".* *The submission goes on to list by Reg. No., all of the pig and poultry licence applications upon which the submission is to be made.* **Agency response:** The assessment of this application included an Environmental Impact Assessment (EIA) screening, an examination of the submitted Environmental Impact Statement (EIS) and undertaking of an Environmental Impact Assessment (EIA) of the activity. The EIA Directive, among other things, sets down various factors to be considered during the EIA process for project categories such as intensive agriculture developments, and includes impacts on the following factors: *(a)* population and human health; *(b)* biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; *(c)* land, soil, water, air and climate; *(d)* material assets, cultural heritage and the landscape; *(e)* the interaction between the factors referred to in points (a) to (d).		

	The Agency will not grant a licence or revised licence unless it is satisfied that emissions comply with relevant emission limit values and standards prescribed under regulations. The submission also mentions animal cruelty concerns and Ireland has legislation governing animal welfare, which are the responsibility of the Dept. of Agriculture, Food and the Marine (DAFM). The submission also mentions financial implications of intensive farming over "smaller farmers". The viability of a business, including farming, is beyond the scope of the EPA Licensing Process.		
8.	**Name & Position** Laura Broxson	**Organisation:** National Animal Rights Association	**Date received:** 17 December 2022
	Issues raised: The issues raised in the submission are as follows: • *The submitter states that the application should be refused as it is "not ethically acceptable to kill or consume any living creature".* • *The submission states that "Ireland's ammonia emissions have not met EU limits for 7 out of the last 9 years" and that "almost all of Ireland's ammonia emissions come from agriculture". It states that "more than half are located in Monaghan and Cavan, counties already struggling with excess manure".* • *The submission goes on to include some of the damage that can be caused by ammonia pollution and PM2.5 to the environment and human beings.* • *It concludes that "for animal rights, human health and safety, and the impact it would have on the environment, these 36 applications need to be refused".* The submission goes on to list by Reg. No., all the pig and poultry licence applications upon which the submission is made. **Agency response:** • The principle of whether it is ethical to consume meat is beyond the remit of the EPA. • Ireland is addressing ammonia emissions from the agricultural sector through the implementation of 'Ag Climatise – A roadmap towards Climate Neutrality'. The recommendations of this document, regarding the national reduction of ammonia levels, are considered during the assessment of licence applications. • All intensive agriculture EPA licensed facilities are required to operate to the best available techniques (BAT) standard as specified in the Commission Implementing Decision (CID) for the intensive rearing of poultry or pigs. This includes the requirement to implement techniques for the reduction and control of ammonia emissions. • Due to the number of intensive agriculture applications/reviews and licences, especially in the Cavan/Monaghan, the EPA published guidance on how applicants should assess the predicted impact of air emissions.		

This has specific restrictions on applications in the Cavan/Monaghan area.

The assessment of this application included the assessment of emissions to air, including ammonia and dust emissions. It also included an Environmental Impact Assessment (EIA), an examination of the submitted Environmental Impact Assessment Report (EIAR) and undertaking of an EIA of the activity. Further information on this can be seen in the 'Ammonia', 'Dust' and 'EIA' sections of this report.

9.	**Name & Position:** Peter Sweetman	**Organisation:** Wild Ireland Defence CLG	**Date received:** 25 March 2023

Issues raised:

In the submission Mr. Sweetman quotes the following from the Courts of Justice of the European Union judgement for cases C-29317 and C-29417:

1. Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that the grazing of cattle and the application of fertilizers on the surface of land or below its surface in the vicinity of Natura 2000 sites may be classified as a 'project' within the meaning of that provision, even if those activities, in so far as they are not a physical intervention in the natural surroundings, do not constitute a 'project' within the meaning of Article 1(2)(a) of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.

Agency response:

Organic fertiliser is something which may be distributed to farmers for use on their farms, but that ultimate use does not form part of the project in respect of which the Agency considers a licence application. Ultimately, the location on which landspreading of organic fertiliser from the installation may occur, can vary across and within any given year.

The spreading of organic fertiliser on farms is regulated by the European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2022 (S.I. 113 of 2022) which gives effect to the 5th Nitrates Action Programme (2022 to 2025), published in accordance with the Nitrates Directive.

In 2022, the 5th Nitrates Action Programme was subject to appropriate assessment (as referred to in this Agency's Inspector's Report) and a strategic environmental assessment. In addition, the referenced Courts of Justice ruling stated that "Article 6(3) of Directive 92/43 must be interpreted as not precluding national programmatic legislation which allows the competent authorities to authorise projects on the basis of an 'appropriate assessment' within the meaning of that provision, carried out in advance and in which a specific overall amount of nitrogen deposition has been deemed compatible with that legislation's objectives of protection."

The appropriate assessment conducted as part of this application is considered in compliance with the rulings of the Courts of Justice of the European Union judgement for cases C-29317 and C-29417.

10.	**Name & Position:** Peter Sweetman	**Organisation:** Wild Ireland Defence CLG	**Date received:** 15 June 2023

Issues raised:

The submission:

- *States that the EPA must assess the disposal of the waste from these developments,*
- *States that the threshold for Appropriate Assessment is set out in Kelly -v- An Bord Pleanála [2014] IEHC 400 (25 July 2014), and*
- *References four CJEU judgements in the context of Article 6 of the Habitats Directive, specifically C-323/17, C-258/11, C-293/17 and C-294/17.*

Agency response:

The submitter's reference to "these developments" refers to pig and poultry installations applying for an industrial emissions licence.

I am satisfied that I have sufficient information available to complete an Appropriate Assessment Screening, in an appropriate manner, to assess in view of best scientific knowledge and the conservation objectives of the site, if the project individually or in combination with other plans or projects is likely to have a significant effect on a Natura 2000 Site.

The Appropriate Assessment section of this report details the results of the appropriate assessment conducted as part of the licence application. The applicant has provided sufficient information regarding the wastes produced by the activities, as well as their disposal off-site. More information on waste can be found in the waste section of this report.

The submitter quotes Case C-323/17 where the court noted that "in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site".

I am satisfied that the screening conducted as part of this application to determine whether or not an Appropriate Assessment was required was consistent with case C-323/17 and did not take into account measures that would mitigate any potential impacts on Natura 2000 sites.

The submitter quotes Kelly -v- An Bord Pleanála [2014] IEHC 400 which references CJEU case C-258/11 where the court noted that in order for a regulatory body such as the Agency to grant approval *"it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned".*

I am satisfied that there is sufficient information available to the Agency to conclude beyond reasonable scientific doubt that emissions and discharges from the proposed project will not have any adverse effects on the integrity of any European site.

The Appropriate Assessment section of this report details the results of the appropriate assessment conducted as part of the licence review. The applicant

	has provided sufficient information regarding the wastes produced by the activity, as well as their disposal off site. More information on waste can be found in the waste section of this report. The submitter quotes cases C-293/17 and C-294/17 where the court ruled *"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that the grazing of cattle and the application of fertilisers on the surface of land or below its surface in the vicinity of Natura 2000 sites may be classified as a 'project' within the meaning of that provision, even if those activities, in so far as they are not a physical intervention in the natural surroundings, do not constitute a 'project' within the meaning of Article 1(2)(a) of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment."* Organic fertiliser is something which may be distributed to farmers for use on their farms, but that ultimate use does not form part of the project in respect of which the Agency considers a licence application. Ultimately, the location on which landspreading of organic fertiliser from the installation may occur, can vary across and within any given year. The spreading of organic fertiliser on farms is regulated by the European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2022 (S.I. 113 of 2022) which gives effect to the 5th Nitrates Action Programme (2022 to 2025), published in accordance with the Nitrates Directive. I am satisfied that the appropriate assessment conducted as part of this application is considered in compliance with the rulings of the Courts of Justice of the European Union judgement for cases C-293/17 and C-294/17.

14. Consultations

14.1 Cross Office Consultation

The Industrial & Carbon Emissions Regulation (ICER) and the Office of Environmental Enforcement (OEE) routinely liaise in relation to the licensing of the intensive agricultural sector. This in part has informed the assessment of this application.

14.2 Transboundary Consultations

There were no transboundary consultations undertaken as there were no transboundary impacts identified.

15. Appropriate Assessment

Appendix 2 lists the European sites assessed, their associated qualifying interests and conservation objectives along with the assessment of the effects of the activities on the European sites. A screening for Appropriate Assessment (AA) was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Blackwater River (Cork/Waterford) SAC (002170), Lower

River Suir SAC (002137), Galtee Mountains SAC (000646), Nier Valley Woodlands SAC (000668), and Blackwater Callows SPA (004094).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activity was required. This determination has been made in light of the following reasons:

- Air emissions have been modelled by the Agency using a screen model (SCAIL Agriculture). The model results indicated that the potential for adverse impact of emissions to air and their consequential potential impact on sensitive receptors cannot be ruled out due to elevated ammonia levels and nitrogen deposition at European sites.

A finalised version of the Natura Impact Statement was received by the Agency on 06 February 2024.

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Blackwater River (Cork/Waterford) SAC (002170), Lower River Suir SAC (002137), Galtee Mountains SAC (000646) Nier Valley Woodlands SAC (000668) and Blackwater Callows SPA (004094), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this RD and the conditions attached hereto for the following reasons:

- The installation is not located within a European site.
- The closest European site is approximately 2.7 km away.
- It is proposed that storm water run-off from the roof and paved areas will be directed into local watercourses. There will be no other direct discharge to surface waters or groundwater within the installation boundary.
- The proposed storm water collection system includes a silt trap on all storm water lines prior to discharge of the storm water from the site.
- The risk of surface water or groundwater contamination because of accidental emissions during washing activities, or from spillage from the slurry tanks, is minimal, given that the nearest European site is 3.3 km downstream from the installation.
- Waste generated on-site will be handled and stored in a manner which will ensure there is no risk to European sites and will only be sent to appropriately authorised facilities.
- It is proposed that slurry will be applied to farmlands in accordance with the Nitrates Regulations. The licence, if granted, relates to the site of the activity for which the licence application is made, i.e., the rearing of pigs within the installation boundary, and does not extend to the lands beyond the installation

boundary on which wash water may be spread or organic fertiliser may be used.

- Activities which can take place within European sites are restricted by legislation. All persons must obtain the written consent from the relevant Minister before performing particular operations on, or affecting, particular habitats where they occur on lands or waters within the SACs and SPAs.
- The closest European site is approximately 2.7 km away from the installation boundary (Blackwater River (Cork/Waterford) SAC) and is considered to be outside of the zone of influence of noise emissions arising at the installation.
- The installation is in a rural area where the predominant farming activities involve the rearing of livestock. There are no other licensed installations within a 5 km radius of the installation.
- The applicant has proposed a number of mitigation measures which comply with BAT to minimise emissions of ammonia and therefore, nitrogen deposition at the designated sites. This includes a commitment to use a low protein feed and multiphase diets and the implementation of slurry cooling or frequent slurry removal to an external store in the pig houses built after the publication of the CID.
- Air emissions were modelled by the applicant (as part of an NIS requested by the Agency) and by the Agency, with more refined input data. The modelling concluded that process emissions from the pigs above the licensing threshold at the installation will not contribute significantly to ammonia levels at European Sites.
- Regard has been had to the EPA's Licence Application Guidance (Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 Sites from Intensive Agriculture Installations, Version 1, May 2021) in addition to the online screening tool SCAIL Agriculture as part of this Appropriate Assessment Screening Determination.

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites Blackwater River (Cork/Waterford) SAC (002170), Lower River Suir SAC (002137), Galtee Mountains SAC (000646) Nier Valley Woodlands SAC (000668) and Blackwater Callows SPA (004094).

Regard has been had to the submissions received concerning Appropriate Assessment as detailed in the Submissions section of this report.

16. Environmental Impact Assessment

16.1 EIA Introduction

The application was accompanied by an Environmental Impact Statement (EIS).

The EIS submitted with this application is the EIS submitted to the Planning Authority as part of planning permission 07/1368 and was submitted to the planning authority prior to 15 May 2017. Therefore, this assessment is being undertaken in accordance with the requirements of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

As part of this environmental impact assessment, I have carried out an examination, analysis and evaluation of all the information provided by the applicant (including the EIS), information received through consultation, the documents associated with the assessments carried out by Tipperary County Council and its reasoned conclusion, and the issues that interact with the matters that were considered by that authority and which relate to the activity, written submissions, as well as considering any supplementary information where appropriate. All of the documentation received was examined and I consider that the EIS complies with the provisions of Article 5 of the 2011 EIA Directive when considered in conjunction with the additional material submitted with the application.

I am satisfied that the information contained in the EIS has been prepared by competent experts and that the environmental effects arising as a consequence of the activity have been satisfactorily identified, described and assessed.

Having specific regard to EIA, this Inspector's Report as a whole is intended to identify, describe and assess for the Agency the likely significant direct and indirect effects of the activity on the environment, as respects the matters that come within the functions of the Agency, for each of the following environmental factors: human beings, fauna and flora, soil, water, air, climate, the landscape, material assets and the cultural heritage.

This Inspector's Report addresses the interaction between those effects and the related development forming part of the wider project. The cumulative effects, with other developments in the vicinity of the activities have also been considered, as regards the combined effects of emissions. The mitigation measures proposed to address the range of predicted significant effects arising from the activity have been outlined. This Inspector's Report provides conclusions to the Agency in relation to such effects.

A summary of the submissions made by third parties has been set out above in the 'Submissions' section of this report.

I am satisfied that the public have been given early and effective opportunity to participate in the environmental decision-making procedure.

16.2 Consultation with Planning Authorities in relation to EIA

Consultation was carried out between Tipperary County Council and the Agency under the relevant section of the EPA Act.

Tipperary County Council confirmed that planning permission ref. 07/1368 is the relevant planning permission for the activity and that an EIS was received by them as part of the planning application assessment. They note that the capacity of the farm is 500 sows, excluding served gilts. They did not provide any further observations to the Agency on the licence application and EIS.

16.3 Consultation with other competent authorities

There was no consultation with other competent authorities in relation to this application.

16.4 Alternatives

The matter of alternatives is addressed in Chapter 1(d) of the EIS. As the installation has been located on its current site for several decades, the consideration of an

alternative location was deemed not appropriate: the only realistic site for the proposed development was adjacent to the existing farm enterprise. The house design is in line with BAT and scale is sufficient to cover development and operational costs.

In this regard I consider that the matter of the examination of alternatives has been satisfactorily addressed.

16.5 Likely Significant Direct and Indirect Effects

The likely significant direct and indirect effects of the activity on the following factors as set out in Article 3 of the EIA Directive are considered in this section:

(a) human beings, fauna and flora;
(b) soil, water, air, climate and the landscape;
(c) material assets and cultural heritage;
(d) the interaction between the factors referred to in points (a), (b) and (c).

16.5.1 Human Beings

Identification, Description and Assessment of Effects

Human beings are mainly addressed in Chapter 2(b) of the EIS. The potential direct and indirect effects on humans are associated with emissions to air, dust, odour, noise emissions, emissions to water, waste generation, and accidental emissions. Should emissions exceed environmental quality standards, this could have implications for humans.

The effects identified and described above have been assessed in the following sections of the licence assessment part of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Noise;
- Waste Generation;
- Organic Fertiliser; and
- Prevention of Accidents.

There is also the potential for accidental emissions to the environment, due to human error or failure of containment infrastructure. Accidental emissions are addressed in the 'Prevention of Accidents' section of this report.

Cumulative effects of the activity in relation to humans have been assessed and it is considered that there is not likely to be a significant cumulative effect from the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring

Mitigation measures and monitoring in relation to humans are detailed in the following sections of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Noise;
- Waste Generation;
- Organic Fertiliser; and
- Prevention of Accidents.

Conclusions
I have examined all the information on humans, provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of humans.

16.5.2 Fauna and Flora

Identification, Description and Assessment of Effects
Fauna and flora were mainly addressed in Chapter 2(b) of the EIS. The EIS describes the habitats and species at and in the vicinity of the installation. The development to which the EIS refers was built in the existing farmyard, therefore no significant impacts on local flora or fauna was envisaged.

There are five Natura 2000 designated sites within 25 km of the application site, the closest being approximately 2.6 km away from the installation. The applicant also submitted a Natura Impact Statement (Refer to the Appropriate Assessment section of this report).

The potential direct and indirect effects on fauna and flora are related to effects on aquatic flora and fauna and their habitats due to effects on water quality, disturbance to fauna due to noise emissions, and effects due to air emissions (e.g. ammonia emissions and nitrogen deposition). The effects identified and described above have been assessed in the following sections of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Storm water Discharges;
- Waste Generation;
- Noise;
- Organic Fertiliser; and
- Prevention of Accidents.

There is also the potential for accidental emissions to the environment, due to spillages or human error, which may impact on fauna and flora. Accidental emissions are addressed in the Prevention of Accidents section earlier in this report. Landspreading of organic fertiliser could impact on water quality, however, this occurs outside of the licensed boundary. This must be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations, which are monitored and controlled by DAFM and the Local Authorities. In addition, the Government's Food Vision 2030 was published in August 2021 and sets out four high level mission statements for the Agri-Food sector. This document proposes more targeted agri-environmental schemes under the CAP Strategic Plan to protect Ireland's habitats and species from emissions from the agricultural sector. This Agri-Food Strategy (AFS) also included an Appropriate Assessment (AA) which concluded that "the adoption of the AFS would not have significant adverse effects on the integrity of any Natura 2000 sites with the inclusion of the mitigation recommendations."

Cumulative effects of the activity in relation to fauna and flora have been assessed and it is considered that there is not likely to be a significant cumulative effect from

the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring
Mitigation measures and monitoring in relation to fauna and flora are detailed in the following sections of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Storm Water Discharges;
- Waste Generation;
- Noise;
- Organic Fertiliser; and
- Prevention of Accidents

Conclusions
I have examined all the information on fauna and flora, provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of fauna and flora.

16.5.3 Soil

Identification, Description and Assessment of Effects
Soil is addressed in Chapter 2(b) of the EIS. The expansion to the installation addressed by the EIS was located on land that was already in use as a farmyard.

This area has a relatively flat to gently undulating topography similar to a significant part of Co. Tipperary and surrounding area. Any potential contamination issues are dealt with in the 'baseline report' section of this report.

The potential direct and indirect effects on soil is associated with emissions to air, emissions to water, and accidental emissions. Should emissions exceed environmental quality standards, this could have implications for soil. The potential effects identified and described above have been assessed in the following sections of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Storm water Discharges;
- Organic Fertiliser;
- Waste Generation;
- Prevention of Accidents; and
- Cessation of Activity.

There is also the potential for accidental emissions to the environment, due to spillages or human error, which may impact on soil. Accidental emissions are addressed in the 'Prevention of Accidents' section earlier in this report. Landspreading of organic fertiliser could impact on soil, however, this occurs outside of the licensed boundary. This must be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations, which are monitored and controlled by DAFM and the Local Authorities.

Cumulative effects of the activity in relation to soil have been assessed and it is considered that there is not likely to be a significant cumulative effect from the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring
Mitigation measures and monitoring in relation to soil are detailed in the following sections of this report:

- Emissions to Air;
- Emissions to Water and Ground;
- Storm water Discharges;
- Organic Fertiliser;
- Waste Generation;
- Prevention of Accidents; and
- Cessation of Activity.

Conclusions
I have examined all the information on soil, provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects on soil.

16.5.4 Water (including Waste Water)

Identification, Description and Assessment of Effects
Water is mainly addressed in Chapter 2(b) of the EIS. The site is above the Araglin Groundwater Waterbody (IE_SW_G_001) which has a Water Framework Status of 'good' and a vulnerability of 'high'.

The site lies within the Blackwater (Munster) catchment area and Crinnaghtane_SC_010 sub-catchment. Storm water from the roof and yard area will discharge to a soak pit or field drains via a silt trap.

There are no emissions to water or ground from the site. The potential direct and indirect effects on water relate to storm water discharges, and sanitary facility emissions. Should the emissions/discharges cause an exceedance of Water Quality Standards in the receiving water, this could have potential effects on water quality, aquatic biodiversity and human health. The effects identified and described above have been assessed in the following sections of this report:

- Emissions to Water and Ground;
- Storm Water Discharges;
- Organic Fertiliser; and
- Prevention of Accidents.

There is also the potential for accidental emissions to water or groundwater to occur. The likelihood of accidental emissions to water is considered low in light of the measures outlined in the 'Prevention of Accidents' section above and in light of the conditions in the RD. This is addressed in Prevention of Accidents section of this report.

The site is in a rural area with most of the developments in the vicinity of the installation being dwelling houses and farmyards. There are no other intensive

agriculture EPA licensed installations within 5 km of the installation and no other significant industrial developments. It is considered that there will be no significant cumulative effect from emissions and storm water discharges from the activity and from other activities/developments in the area.

Landspreading of organic fertiliser, which occurs outside of the licensed boundary, could cause pollution of surface waters or groundwater. To prevent this, the application of fertilisers to land is controlled by the Nitrates Regulations. These give legal effect in Ireland to the Nitrates Directive and to our Nitrates Action Programme (NAP) and controls the management and application of livestock manure and other fertilisers. The NAP is required to be reviewed every four years. In 2022, the Department of Housing, Local Government and Heritage undertook an Appropriate Assessment of the current NAP (5th NAP 2022-2025), which included a Natura Impact Statement (February 2022) for Irelands NAP, and concluded that the NAP would not result in adverse effects on European site integrity either alone or in combination with other plans and programmes.

As mentioned earlier, the AFS sets out four high level mission statements for the sector. One of its mission statements is to become a 'Climate smart, environmentally sustainable Agri-food sector'. This target is underpinned by seven goals one of which, to "Protect High Status Sites and Contribute to Protection & Restoration of Good Water Quality and Healthy Aquatic Ecosystems". The report identified five actions under this goal including protecting water from agricultural pollution and reduce use of agricultural pesticides. Its associated AA concluded "the adoption of the AFS would not have significant adverse effects on the integrity of any Natura 2000 sites with the inclusion of the mitigation recommendations."

The National River Basin Management Plan (2022-2027) was published in September 2024. Over the period of this river basin planning cycle, there are measures being undertaken to meet the environmental objectives of the WFD. These include measures such as implementation of the Nitrates Action Programme (Nitrates Regulations) and associated inspection regime. Targeted monitoring as envisaged under the Plan allied with multi-party enforcement (EPA/Local Authority/DAFM) provides an early warning of potential problems/improvements and of the possible need to adapt the Plan to ensure protection of our waters.

Cumulative effects of the activity in relation to water have been assessed and it is considered that there is not likely to be a significant cumulative effect from the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring

Mitigation measures and monitoring in relation to water are detailed in the following sections of this report:

- Emissions to Water and Ground;
- Storm Water Discharges;
- Organic Fertiliser; and
- Prevention of Accidents.

Conclusions

I have examined all the information on water (including Storm Water, Emissions to Water and Groundwater) provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where

appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects on water.

16.5.5 Noise

Identification, Description and Assessment of Effects

Noise is mainly addressed in Chapter 2(b) of the EIS. The installation is in a rural area, 400 m from the nearest third-party dwelling. The potential direct and indirect effects of noise associated with the operation of the activity is the potential to cause nuisance for those living near the activity or to affect noise sensitive species near the site. The effects have been assessed in the 'noise' section of this report.

There is also the potential for accidental noise emissions. This is addressed in the 'Prevention of Accidents' section of this report.

Cumulative effects of the activity in relation to noise have been assessed and is considered that there is not likely to be a significant cumulative effect from the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring

Mitigation measures and monitoring in relation to noise are detailed in the 'Noise' section of this report.

Conclusions

I have examined all the information on noise provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of noise.

16.5.6 Air

Identification, Description and Assessment of Effects

Air is mainly addressed in Chapter 2(b) of the EIS. The potential direct and indirect effects on air are associated with emissions to air of ammonia, dust and odour from the pig housing, and dust from the installation yard. Should emissions cause an exceedance of air quality standards or critical levels/loads, this could have implications for air quality, human health and biodiversity within and beyond the site boundary. General site dust and odour emissions have the potential to impact humans and cause nuisance.

The effects identified and described above have been assessed in the following sections of this report:

- Emissions to Air;
- Organic Fertiliser; and
- Prevention of Accidents.

There is also the potential for accidental emissions to the environment. This is addressed in the 'Prevention of Accidents' section of this report.

In relation to cumulative effects, it is noted that there are no EPA-licensed intensive agriculture installations or other EPA licensed activities within 5 km of the installation.

As stated previously, the Agency has issued a guidance document to assist applicants in undertaking an assessment of the impacts of ammonia and nitrogen, including cumulative assessments, titled "*Assessment of the impact of ammonia and nitrogen on Natura 2000 sites from intensive agriculture installations*" (EPA, May 2021).

Modelling of odour emissions was undertaken by the applicant and concluded that there should be no impacts on any odour-sensitive locations nearby. In addition, site specific modelling of the ammonia emissions from the installation was undertaken, which took into account the background levels of ammonia, and it is considered that there is not likely to be a significant cumulative effect on sensitive receptors, with the controls in place and controls recommended in the RD, as a result of the ammonia emissions from the installation and those generated by other activities/developments in the area.

According to '*Ireland's Informative Inventory Report 2024*' (EPA 2024), which contains the most recent data, ammonia emissions in 2022 from the pig sector were 6.1 kt (or 4.8% of Ireland's National emissions). This installation will emit 13.9 tonnes per annum. In December 2020, the Government issued '*Ag Climatise – A Roadmap towards Climate Neutrality*'. This is a roadmap of actions for agriculture to cut GHG emissions as well as ammonia emissions significantly over the next decade, and up to 2050. The road map lists actions aiming to reduce the cumulative impact of ammonia emissions from the sector as a whole.

As mentioned earlier, the AFS sets out four high level mission statements for the sector one of which is to become a 'Climate smart, environmentally sustainable Agri-food sector'. Another of its seven goals is to develop a climate neutral food system by 2050 and improve air quality. As stated, its associated AA concluded "the adoption of the AFS would not have significant adverse effects on the integrity of any Natura 2000 sites with the inclusion of the mitigation recommendations."

As detailed previously in the 'Emissions to Air' section of this report, Ireland is addressing ammonia emissions (including emissions from landspreading) in accordance with the NECD and S.I. No. 232/2018, European Union (National Emission Ceilings) Regulations 2018. The Code of Good Agricultural Practice as referred to earlier in this report contains guidelines on topics including *inter alia* low emission spreading and fertiliser management, as well as animal feed and housing.

Approximately 4.0% of the ammonia emissions that originate from landspreading in Ireland come from the pig sector. This equates to 1.1% of Ireland's total ammonia emissions. The organic fertiliser generated by the activity represents a negligible quantity relative to the total quantity of organic fertiliser arising from the livestock sectors in Ireland (cattle, sheep, pigs and poultry).

Cumulative effects of the activity in relation to air have been assessed and it is considered that there is not likely to be a significant cumulative effect from the activity and other activities/developments. There are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring

Mitigation measures and monitoring in relation to air, including ammonia, dust and odour, are detailed in the following sections of this report:

- Emissions to Air;
- Organic Fertiliser; and
- Prevention of Accidents.

Conclusions

I have examined all the information on Air (including ammonia, dust and odour) provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of Air (including ammonia, dust and odour).

16.5.7 Climate

Identification, Description and Assessment of Effects

Supplementary information submitted by the applicant in response to a request for further information addresses Climate. Climate change is a significant global issue which affects weather and environmental conditions (air, water and soil) which consequently affects human beings, material assets, cultural heritage, the landscape and fauna and flora. Climate change is caused by warming of the climate system by enhanced levels of atmospheric greenhouse gases (GHG) due to human activities. GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3) and sulphur hexafluoride (SF_6).

The installation does not operate under a GHG Emissions Permit in accordance with the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012, (S.I. 490 of 2012 and amendments). Therefore, this site is not subject to the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012, (S.I. 490 of 2012 and amendments) (the EU ETS). It is therefore a requirement of the IED to investigate how direct emissions of CO_2 might be minimised.

Indirect emissions of CO_2 may arise due to the use of electricity from the national grid. These emissions are covered under the EU ETS at the generating plant, but the applicant is also required to address electricity usage as part of energy efficiency management.

The Irish Government approved "Ireland's Climate Action Plan (CAP24)" on 21 May 2024, which is the third annual update to the Climate Action Plan 2019 and the second to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021.

The potential direct and indirect effects on climate are associated with storage and spreading of organic fertiliser (litter) (nitrous oxide) and usage of fossil fuels (carbon dioxide).

However, any discussion of GHG emissions must be extended to national and global climate impact. As part of the non-ETS (Emissions Trading Scheme) sector the GHG emissions from this site are covered by Ireland's commitments under the Effort Sharing Decision (Decision No 406/2009/EC) and the Effort Sharing Regulation (Regulation (EU) 2018/842) from 2021.

Given the small quantity of climate altering substances that could be released from the activity, in a national context, I consider that the impact of any emissions from the installation on climatic considerations should be minimal.

It is considered that the likelihood of accidental emissions occurring which could affect climate is low in light of the measures outlined in the 'Prevention of Accidents' section above and the proposed conditions in the RD. Therefore, there are no likely significant direct, indirect or cumulative effects identified.

Mitigation and Monitoring
Mitigation measures and monitoring in relation to climate are detailed in the following sections of this report:

- Emissions to Air;
- Organic Fertiliser;
- Prevention of Accidents; and
- Energy Efficiency.

Conditions 2 and 7 of the RD deal with energy efficiency matters at the installation.

Conclusions
I have examined all the information on climate provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of climatic factors.

16.5.8 Material Assets, Cultural Heritage and the Landscape

16.5.8.1 Material Assets (including resource use and waste generation)

Identification, Description and Assessment of Effects
Chapter 2(b) and 2(c)(ii) of the EIS addresses Material Assets, and include information on traffic, transport, agricultural and non-agricultural property, and resources (both natural and others) such as energy and water. Material assets such as roads and traffic and built services are dealt with in the decision of the planning authority to grant permission for the development and are not controlled by the Agency. The planning authority has considered the effect to be acceptable.

The use of natural resources by the activity will not have significant effects in terms of material assets. There are sufficient supplies of electricity and water to serve the requirements of the development. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site. The production of waste by the activity is assessed in the 'Waste Generation' section of this report.

The effects identified and described above have been assessed in the following section of this report:

- Waste Generation; and
- Energy Efficiency and Resource Use.

No significant cumulative effects on material assets have been identified. Therefore, there are no likely significant direct, indirect or cumulative effects.

Mitigation and Monitoring
Mitigation measures and monitoring in relation to material assets are detailed in the following sections of this report:

- Waste Generation;
- Energy Efficiency and Resource Use.

Material Assets Conclusions
I have examined all the information on material assets provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of Material Assets.

The planning authority has also identified, described and assessed the likely significant direct and indirect effects of the development on material assets. Their assessment concluded that the development "would be acceptable in terms of traffic safety and convenience" and "would not injure the amenities of the area or of properties in the vicinity".

The RD does not propose to include any additional mitigation measures in relation to material assets.

16.5.8.2 Cultural Heritage

Identification, Description and Assessment of Effects
Chapter 2(b) of the EIS addresses the potential direct and indirect effects on cultural heritage. Any loss of archaeological or architectural heritage could impact negatively on human beings. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site and are not controlled by the Agency. The planning authority has considered the effect to be acceptable.

There are no buildings or features of architectural significance and no known archaeological features at or near the site of the installation. It is very difficult to envisage any pathway by which emissions from the operation of the activity could impact any feature which might be present.

No significant cumulative effects on the cultural heritage have been identified. Therefore, there are no likely significant direct, indirect or cumulative effects.

Mitigation and Monitoring
There are no specific mitigation measures or monitoring proposed in the RD.

Cultural Heritage Conclusions
These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site and are not controlled by the Agency. They have considered the effects to be acceptable.

The RD does not propose to include any additional mitigation measures in relation to cultural heritage.

16.5.8.3 The Landscape

Identification, Description and Assessment of Effects
The potential direct and indirect effects on the landscape are described in Chapter 2(b) of the EIS. Any disturbance of the landscape has the potential to impact on human beings and their enjoyment of the surrounding area due to visual impacts. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site and are not controlled by the Agency. The planning authority has considered the effects to be acceptable.

The installation is located in a rural, predominantly agricultural area. Emissions from the operation of the activity will not affect the agricultural landscape of the area.

No significant cumulative effects on the landscape have been identified. Therefore, there are no likely significant direct, indirect or cumulative effects.

Mitigation and Monitoring
There are no specific mitigation measures or monitoring proposed in the RD.

The Landscape Conclusions
The Planning Authority has identified, described and assessed the likely significant direct and indirect effects of the development on the landscape. Their assessment concluded that the development "would not be unduly obtrusive on the landscape".

The RD does not propose to include any additional mitigation measures in relation to landscape.

16.5.8.4 Overall Conclusions for Material Assets, Cultural Heritage and the Landscape

I have examined all the information on material assets, cultural heritage and the landscape provided by the applicant, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of material assets, cultural heritage and the landscape.

16.5.9 Interactions

Interactions of effects are considered throughout Chapter 2(b) of the EIS. The most significant interactions between the factors as a result of the activity are summarised below.

Human beings, air, and fauna and flora
Potential effects from emissions to air may impact on human beings, air quality and flora and fauna as demonstrated in the 'Emissions to Air' section above. As demonstrated such effects are considered not to be likely or significant.

Water, soil, and fauna and flora

Accidental discharges of wash water, slurry or other substances to ground may directly and indirectly affect soil, groundwater quality, surface water quality downstream, aquatic habitats and aquatic flora and fauna. Indirect effects on soil, groundwater quality, surface water quality, habitats and flora and fauna may arise from landspreading slurry which arises from the activity. As demonstrated in the 'Emissions to Water and Ground' section above, such effects are not considered to be likely or significant.

Conclusions
I have considered the interactions between human beings, fauna and flora, soil, water, air, climate, material assets, cultural heritage and landscape, and the interaction of the likely effects identified throughout this report. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of the interaction between the foregoing environmental factors.

16.6 Reasoned Conclusion on the significant effects

Having regard to the examination of environmental information contained above, and in particular to the content of the EIS and supplementary information provided by the applicant, and the submissions from the planning authority and third parties in the course of the application and when supplemented by my assessment as contained in this report, it is considered that the potential significant direct and indirect effects of the activity on the environment are as follows:

- Emissions to air;
- Noise emissions; and
- Accidental leakages or spills.

Having assessed those potential effects, I have concluded as follows:

- Emissions to air will be mitigated through inclusion of abatement (including the use of low protein feed, slurry cooling, and frequent slurry removal to an external store); imposing emission limit values to comply with the CID; and implementing monitoring, maintenance and control measures;
- Noise emissions will be mitigated through imposing daytime, evening-time and night-time noise limits at noise sensitive locations; and implementing monitoring, maintenance and control measures; and
- Accidental leakages or spills will be mitigated through inspection and maintenance of bunds and tanks; and accident and emergency requirements specified in the RD.

Having regard to the effects (and interactions) identified, described and assessed throughout this report, I consider that the monitoring, mitigation and preventative measures proposed will enable the activity to operate without causing environmental pollution, subject to compliance with the RD. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

17. EPA Charges

The annual enforcement charge recommended in the RD is €8,497, which reflects the anticipated enforcement effort required and the cost of monitoring.

18. Recommendation

The Agency, in considering an application for a licence or the review of a licence, shall have regard to section 83 of the EPA Act. The Agency shall not grant a licence or revised licence unless it is satisfied that emissions comply with relevant emission limit values and standards prescribed under regulation. In setting such limits and standards, the Agency must ensure they are established based on the stricter of either, or both, the limits and controls required under BAT, and those required to comply with any relevant environmental quality standard. The Agency shall perform its functions in a manner consistent with section 15 of the Climate Action and Low Carbon Development Act 2015 as amended.

The RD specifies the necessary measures to provide that the installation shall be operated in accordance with the requirements of section 83(5) of the EPA Act and has regard to the AA and the EIA. The assessment is consistent with section 15 of the Climate Action and Low Carbon Development Act 2015 as amended. The RD gives effect to the requirements of the EPA Act and has regard to submissions made.

I recommend that a Proposed Determination be issued subject to the conditions and for the reasons as drafted in the RD.

Signed

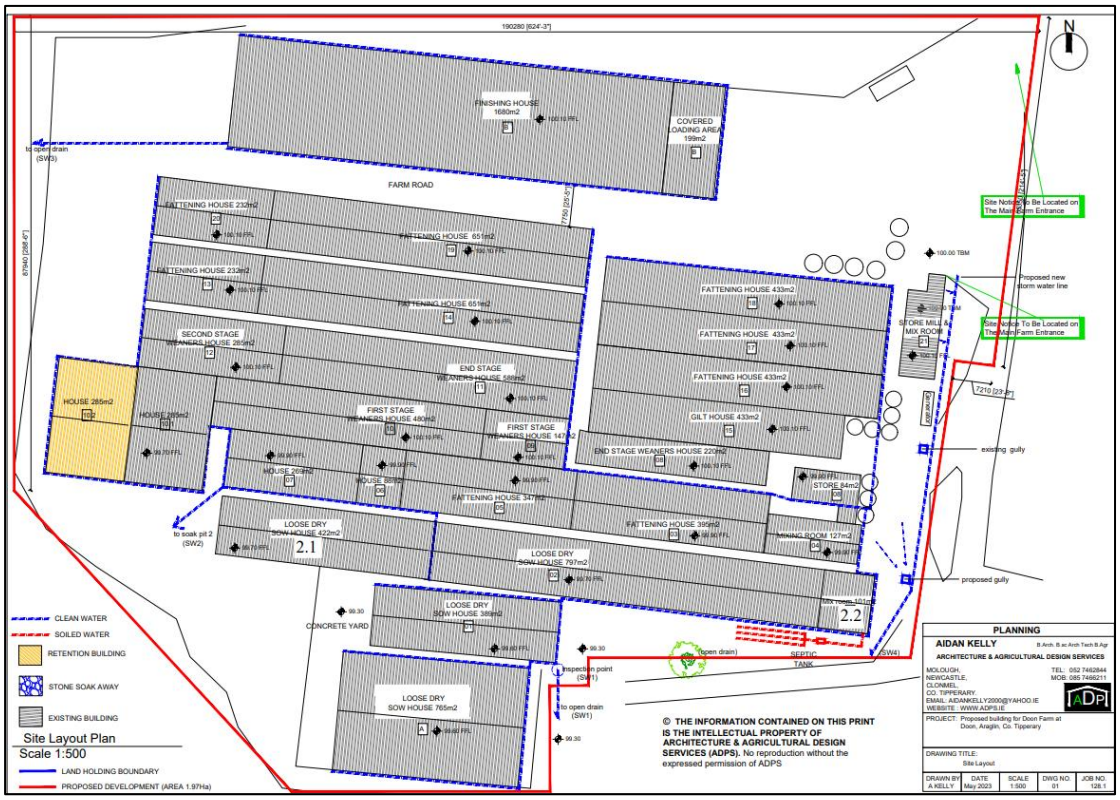
Philip Stack, ICER Inspector

Procedural Note

In the event that no objections are received to the Proposed Determination on the application, a licence will be granted in accordance with Section 87(4) of the EPA Act, as soon as may be after the expiration of the appropriate period.

Appendices

Appendix 1: Maps/Drawings



Excerpt from the Drawing No. 01, 'Site Layout' of the application, received by the Agency on 06 February 2024.

Appendix 2: AA table

Assessment of the effects of the activity on European sites and proposed mitigation measures.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
002170	Blackwater River (Cork/Waterford) SAC	**Habitats** 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1220 Perennial vegetation of stony banks 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* **Species** 1096 Brook Lamprey *(Lampetra planeri)* 1106 Salmon *(Salmo salar)*	NPWS (2012) Conservation Objectives: Blackwater River (Cork/Waterford) SAC 002170. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	The nearest part of the site is located 2.7 km to the west of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to any potential hydrological connectivity of the project site with the European site being in excess of approximately 3.3 km. The project site is not located within the vicinity of any known breeding site for Brook Lamprey *(Lampetra planeri),* Salmon *(Salmo salar),* Killarney Fern *(Trichomanes speciosum),* Sea Lamprey *(Petromyzon marinus),* Otter *(Lutra lutra),* Twaite Shad *(Alosa fallax fallax),* White-clawed Crayfish *(Austropotamobius pallipes),* Freshwater Pearl Mussel *(Margaritifera margaritifera), or* River Lamprey *(Lampetra fluviatilis)* at this European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Site Code	Site Name	**Qualifying Interests** *(* denotes a priority habitat)*	**Conservation Objectives**	**Assessment**
		1421 Killarney Fern *(Trichomanes speciosum)* 1095 Sea Lamprey *(Petromyzon marinus)* 1355 Otter *(Lutra lutra)* 1103 Twaite Shad *(Alosa fallax fallax)* 1092 White-clawed Crayfish *(Austropotamobius pallipes)* 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 1099 River Lamprey *(Lampetra fluviatilis)*		
002137	Lower River Suir SAC	**Habitats** 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* 91J0 Taxus baccata woods of the British Isles*	*NPWS (2017) Conservation Objectives: Lower River Suir SAC 002137. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*	The site is located 6.4 km to the north of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. The project site is not located within the vicinity of any known breeding site for Freshwater Pearl Mussel *(Margaritifera margaritifera)* White-clawed Crayfish *(Austropotamobius pallipes),* Sea Lamprey *(Petromyzon marinus),* Brook Lamprey *(Lampetra planeri),* River Lamprey *(Lampetra fluviatilis),* Twaite Shad *(Alosa fallax fallax),* Salmon *(Salmo salar),* Otter *(Lutra lutra)* at this European site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
		Species 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 1092 White-clawed Crayfish *(Austropotamobius pallipes)* 1095 Sea Lamprey *(Petromyzon marinus)* 1096 Brook Lamprey *(Lampetra planeri)* 1099 River Lamprey *(Lampetra fluviatilis)* 1103 Twaite Shad *(Alosa fallax fallax)* 1106 Salmon *(Salmo salar)* 1355 Otter *(Lutra lutra)*		I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
004094	Blackwater Callows SPA	**Birds** A038 Whooper Swan *(Cygnus cygnus)* A050 Wigeon *(Anas penelope)* A052 Teal *(Anas crecca)* A156 Black-tailed Godwit *(Limosa limosa)* **Habitats** Wetlands		The site is located 7.1 km to the south of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to any potential hydrological connectivity of the project site with the European site being in excess of 18.1 km. The project site is not located within the vicinity of any known breeding site for Whooper Swan *(Cygnus cygnus),* Wigeon *(Anas penelope),* Teal *(Anas crecca)*, or Black-tailed Godwit *(Limosa limosa)* at this European site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
				I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
000646	Galtee Mountains SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 4060 Alpine and Boreal heaths 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation	*NPWS (2016) Conservation Objectives: Galtee Mountains SAC 000646. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*	The site is located 15.1 km to the northwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
000668	Nier Valley Woodlands SAC	**Habitats** 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	*NPWS (2021) Conservation Objectives: Nier Valley Woodlands SAC 000668. Version 1. National Parks and Wildlife*	The site is located 23.8 km to the east of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Service, Department of Housing, Local Government and Heritage.	I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Appendix 3: Relevant Legislation

The following European instruments which have been transposed into Irish legislation are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.
National Emissions Ceilings Directive (2016/2284)
Industrial Emissions Directive (IED) (2010/75/EU)
Environmental Impact Assessment (EIA) Directive (2011/92/EU as amended by 2014/52/EU)
Habitats Directive (92/43/EEC) as amended & Birds Directive (2009/147/EC) as amended
Water Framework Directive [2000/60/EC]
Waste Framework Directive (2008/98/EC)
Air Quality Directives (2008/50/EC and 2004/107/EC)
Groundwater Directive (80/68/EEC) and 2006/118/EC
Environmental Liability Directive (2004/35/CE)
Regulation (EC) No 1069/2009, as amended (Animal By-products Regulation) and Regulation (EC) No 142/2011
Nitrates Directive (91/676/ EEC)
Energy Efficiency Directive (2018/2002/EU)

Appendix 4: Other CIDs/BREF/BAT documents relevant to this assessment

Commission Implementing Decisions	Publication Date
COMMISSION IMPLEMENTING DECISION of 15 February 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs (2017/302/EU)	February 2017
Sectoral BREF	Publication date
Reference Document on the Best Available Techniques for the Intensive Rearing of Poultry or Pigs	July 2017
Horizontal BREF	Publication date
Reference Document on the Best Available Techniques on Emissions from Storage	July 2006
Reference Document on the Best Available Techniques for Energy Efficiency	February 2009