


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

Signed: 

Date: 18th May 2023



OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE APPLICATION, LICENCE REGISTER NUMBER P0790-03

TO: MICHEAL LEHANE, DIRECTOR

FROM: Linda Cahill, ELP Inspector

DATE: 18 May 2023

Applicant:	Mr. Eoin O'Brien
Location/address:	Mogeely Pig Farm, Annistown, Killeagh, County Cork.
Application date:	13 April 2017
Classes of activity (under EPA Act 1992 as amended):	6.2: The rearing of pigs in an installation where the capacity exceeds: (a) 750 places for sows, or (b) 2,000 places for production pigs which are each over 30kg.
Categories 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), or 6.6(c) Intensive rearing of pigs with more than 750 places for sows.
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: Licensed pig rearing activity changing from a 600-sow integrated unit to a 1,500-sow integrated unit.	
Additional information received:	Yes: 26 June 2017, 18 January 2018, 10 July 2018, 13 April 2021, 01 October 2021, 27 October 2022, 24 January 2023.
No of submissions received:	Nine
Environmental Impact Assessment required: Yes	Stage 2 Appropriate Assessment required: Yes
Environmental Impact Statement submitted (EIS): Yes (13 April 2017, 13 April 2021, 1 October 2021)	Natura Impact Statement (NIS) submitted: Yes (27 October 2022)
Site visit: 22 July 2021	Site notice check: 28 April 2018

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).

Mr. Eoin O'Brien owns and operates a licensed pig rearing farm (licence Reg No. P0790-02) at Mogeely Pig Farm, Annistown, Killeagh, County Cork. Mr. Eoin O'Brien has applied to the Agency for an IED licence review, to allow for an increase in pig numbers on-site, as detailed in Table 1.1 below.

The proposed development includes the demolition of six buildings, the construction of eight buildings and the extension of an existing animal house, as detailed in the Planning section below. Some of the animal houses consist of blocks of buildings, as detailed in the site layout maps included in Appendix 1 of this report. The total number of animal houses will be twelve. The review application includes a revised site boundary. There will also be additional licence conditions to bring the activity into compliance with the Commission Implementing Decision (CID)¹.

Table 1.1. Animal Numbers

Pig categories	Existing No. of Animals	Proposed No. of Animals
Farrowing sows	180	450
Dry sows	420	1050
Served gilts	Not specified	
Weaners	3,600	6,000
Gilts	160	See served gilts above & maiden gilts below.
Maiden gilts	Not specified.	Included in production pig numbers below.
Boars	4	Included in production pig numbers below.
Finishers	3,600	Included in production pig numbers below.
Production pigs (growers, finishers, boars, maiden gilts)	This classification was not used.	12,410

¹ 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)

Total no. animals	7,964 ^{Note 1 & Note 2}	19,910
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Note 1: This excludes suckling pigs maintained on-site.

Note 2: A 20% increase in the number of finishers held on-site, for a period not exceeding 2 weeks, is permissible. The frequency of such occurrences must be kept to a minimum. Any other variation in any of the animal numbers specified requires prior agreement from the Agency.

For the purposes of the IED categorisation, this equates to 1,500 sows (including farrowing sows, dry sows and served gilts) and 12,410 production pigs for the proposed activity.

2. Description of activity

The installation is located in a rural location. The village of Killeagh is located 3 km east of the installation, the village of Mogeely is 1.6 km south-west of the installation and the nearest housing agglomeration is 1 km south-west. The majority of remaining development near the installation consists of one-off dwelling houses and farm yards. The nearest third-party residential dwelling is 165 m away. Pig farming has been carried out on this site since the 1960s. The proposed installation will provide full-time employment for nine people. The installation was first licensed on 21 August 2008 (Reg. No. P0790-01) and the most recent licence was granted on 04 April 2012 (Reg. No. P0790-02).

The main activities at this installation occur during normal working hours between 06:00 and 20:00. Stock inspections are and will be carried out every day, including weekends and bank holidays and additional essential activities may be undertaken outside of core working hours. Production on the site is continuous, and automated feeding and ventilation systems operate on a 24-hour basis. 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 will consist of twelve 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 slurry storage tanks under the animal houses and the associated passages are deep pit. However, the maximum depth of slurry in the slurry storage tanks and passages will be restricted to 800 mm (as per shallow pits). The slurry will be removed frequently under vacuum via a sluice-based system to three on-site covered external slurry storage tanks. This is discussed further in the odour and ammonia sections below.

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 110-120kg. All rooms will be washed and rested after each batch of pigs is removed.

The houses are and will be thermally insulated, with a computer-controlled ventilation system and artificial lighting. The principal inputs to the operation are feed, water, veterinary medicines and energy (electricity, diesel for back-up generator and on-site tractor, and oil for back-up heating system). Heating requirements are fulfilled by an

Air-to-Water heating system. The main by-product of pig rearing is organic fertiliser² (slurry including wash water). These are discussed in further detail later in this report.

3. Planning Status

One planning application has been made by the licensee for the area within the installation boundary since the current licence (Ref. P0790-02) was granted in 2012. On 26 March 2013, Cork County Council made a decision to grant planning permission (Ref: 12/6635) for the demolition of six buildings, the construction of eight buildings, the extension of an existing animal house and associated site works to accommodate an overall capacity on the farm of 1,500 sow places in an integrated unit. An Taisce appealed the planning decision on the grounds that Cork County Council, in its decision, failed to address European Court of Justice (ECJ) judgements Case C50-09 and Case C183-05. An Bord Pleanála addressed the objection and permission (Ref: PL.04.241892) was granted with conditions on 14 October 2013. Details of this planning permission has been provided in the application form. This expansion work has commenced and is mostly completed. An extension of duration of the permission granted under planning ref. 12/6635 and An Bord Pleanála ref. PL.04241892 was granted on 24 September 2018.

The EIS (dated March 2017 Revision B) submitted with the application was not the EIS submitted with planning application ref: 12/6635. The planning EIS (dated December 2012) was requested by the Agency and subsequently submitted by the licensee. An EIS addendum (March 2017 Revision B Addendum No. 1 April 2021) was also subsequently submitted by the licensee. As part of the EIA consultation process with the planning authorities (discussed in the "EIA" section later in this report), Cork County Council confirmed that the EIS submitted to the planning authority was superseded by the EIS submitted to An Bord Pleanála. An Bord Pleanála confirmed that the EIS dated December 2012 is identical to the original EIS submitted with the appeal and does not include subsequent information submitted to the Board by the licensee.

The Agency has had regard to the reasoned conclusions reached by the planning authority and An Bord Pleanála in undertaking its environmental impact assessment of the activity.

Schedule A of the RD limits the number of pigs housed on-site to those proposed in Table 1.1 above. Table 1.1 corresponds to the overall capacity specified in the review application submitted, in the EIS submitted in support of the application, and in the planning permissions granted for the installation. The number and type of pigs outlined in Table 1.1 is as per the clarification provided by Cork County Council on 04 January 2022 (and received from the licensee as further information on 27 October 2022). This correspondence permits the re-classification of pig types on-site from those permitted by planning ref. 12/6635 but does not increase or decrease the overall numbers permitted.

² Any fertiliser other than that manufactured by industrial process, and includes livestock manure, dungstead manure, farmyard manure, slurry, soiled water, silage effluent, non-farm organic substances such as sewage sludge, industrial by-products and residues from fish farms.

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.

Having considered the information provided by the licensee, it has been determined that the activity constitutes a project to which the EIA Directive applies and is likely to give rise to significant effects on the environment by virtue of its nature, size and location.

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

Part 1; Project 17 Installations for the intensive rearing of poultry or pigs with more than –

(b) 3,000 places for production pigs (over 30 kilograms),

(c) 900 places for sows.

An EIS³ was submitted to the Agency as part of the application on 13 April 2017. The EIS, dated December 2012, associated with planning permission reference 12/6635 was requested by the Agency and subsequently submitted by the licensee. An EIS addendum⁴ was also subsequently submitted by the licensee. 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 licensee and is included in Attachment I.5 of the application form and further information submitted by the licensee. Additional conditions incorporated into the RD to address BAT Conclusions are detailed throughout this report. Any relevant BAT-AELs have been specified in the emissions sections of this report.

³ Environmental Impact Statement Proposed Extension to Integrated Pig Production Farm Unit at Annistown Killeagh Co Cork For Eoin O'Brien March 2017 Revision B.

⁴ Environmental Impact Statement Addendum No. 1 Proposed Extension to Integrated Pig Production Farm Unit at Annistown Killeagh Co Cork For Eoin O'Brien March 2017 Revision B Addendum No. 1 April 2021.

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 Channelled Emissions to Air

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

There is one oil boiler on-site (<250kW liquid fuel) which provides back-up heat for the activity. Due to the emission characteristics, this is regarded as a minor emission to atmosphere, and is not, therefore, considered environmentally significant. This minor emission is not considered as part of this impact assessment

As the thermal input for the boiler is not greater than 5MW for liquid fuel, the Medium Combustion Plant Directive does not apply.

6.1.2 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 below (Table 6.1).

Table 6.1: Nearest third-party residential dwellings

Distance from Site (and number of dwellings)	Direction from Site
165 - 330 m (4)	east
195 m (1)	south
415 – 465 m (2)	south-west

6.1.3 Dust

Dust may arise from the expulsion of warm air from ventilation systems on-site, vehicle movements, removal of organic fertiliser, 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 by the Agency or by the licensee in relation to dust for this site. The licensee 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:

- That dust 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 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. No complaints or submissions relating to odour have been received by the Agency or by the licensee. The licensee has provided an odour impact assessment for the proposed activity based on the EPA 'Instruction note and screening tool for the assessment of odour emissions from Intensive Agriculture pig installations (2022)⁵'. The licensee subsequently submitted an air quality dispersion modelling report which quantified the odour levels at sensitive properties in the vicinity of the installation. The modelling report concludes that the calculated concentration at the nearest sensitive receptor (165 m) for this installation's dispersion characteristics is below the required benchmark of 5.0 OU_E/m³.

The implementation of BAT on-site will reduce odour emissions. Conditions in relation to BAT 3, 12, 13 and 30 are included in the RD. The licensee has provided an odour management plan which addresses the sources of odour from the existing and expanded installation, and mitigation measures to minimise odours.

The licensee has stated that the design of the buildings, adherence to good management practices, and implementation of the required mitigation measures will minimise odour from the installation. The animal houses will be cleaned at the end of each batch, with the slurry removed from below the houses on a frequent basis via a vacuum system to the covered slurry stores on-site. The slurry will be removed off-site from the external slurry stores by vacuum tankers and delivered to recipient farmers for use as an organic fertiliser. Agitation of the slurry will be minimised, and the houses will be stocked at optimum levels and adequately ventilated, to minimise odour emissions.

Therefore, odour is not expected to be a significant issue.

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 RD limits the crude protein content of the animal feed (Condition 6 and Schedule C).
- That the licensee prepares, maintains and implements an odour management plan, and incorporates it into the Environment Management System (EMS) for the installation, as per BAT 12 (Condition 6).

⁵ [Licensing & Permitting: Industrial Emission Licensing \(IED\) Publications | Environmental Protection Agency \(epa.ie\)](#)

- To use a combination of the techniques listed in BAT 13 to prevent/reduce odour emissions/impact from the site (Condition 6).
- To use a combination of the techniques listed in BAT 30 to reduce ammonia emissions to air from each pig house (Condition 6).
- That the licensee carries out an odour survey of the site operations as required by the Agency or in response to any odour complaint received (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 2022*”⁶ (EPA, 2022) identifies agriculture as the primary contributor (99.4%) of Irish ammonia emissions in 2020, emitting a total of 123.41 kilotonnes (kt) of ammonia in that year. According to that report, ammonia emissions from the pig sector in 2020 accounted for 6.3 kt. The Department of Agriculture, Food and the Marine (DAFM) has published a ‘*Code of Good Agricultural Practice for reducing Ammonia Emissions from Agriculture*’⁷, as required by the National Emission Ceiling Directive (NECD).

This installation will emit approximately 27 tonnes of ammonia per annum. Ammonia emissions from this activity could 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 Agriculture⁸) 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 sites from intensive agriculture installations” (EPA, March 2023⁹).

The licensee submitted a full site-specific air dispersion 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 AG4¹⁰.

⁶ https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Ireland-IIR-2022_mergev2.pdf

⁷ <https://www.gov.ie/en/publication/9a6c6-code-of-good-agricultural-practice-for-reducing-ammonia-emissions-from-agriculture/>

⁸ SCAIL Agriculture is a web-based screening tool available at <http://www.scail.ceh.ac.uk/>

⁹ [Assessment of Impact of Ammonia and Nitrogen on Natura sites from Intensive Agriculture Installations 2023.pdf \(epa.ie\)](https://www.epa.ie/publications/compliance--enforcement/air/air-guidance-notes/epa-air-dispersion-modelling-guidance-note-ag4-2020.pdf)

¹⁰ 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>

The specific running components of the ventilation system are conditioned in Schedule C of the RD. These specifications can be varied, subject to approval of the Agency, based on further air dispersion modelling.

Conditions in relation to BAT 3 and 30 are included in the RD including the requirement for low protein feed (for all pig types except weaners) and the requirement for frequent slurry removal from the animal houses. Two new external slurry storage tanks are proposed, in addition to the existing one on-site, which will provide sufficient storage capacity on-site to facilitate frequent slurry removal.

These techniques were incorporated into the ammonia modelling provided by the licensee and will significantly reduce ammonia emissions. The Agency has set the emission limits in Schedule B.1 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 to upper range set out in the CID.

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 licensee and conditioned in the RD.

The licensee 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 use a diet formulation and nutritional strategy to reduce the total nitrogen excreted, as per BAT 3. The RD limits the crude protein content of the animal feed (Condition 6 and Schedule C).
- To use a combination of the applicable techniques listed in BAT 16 to reduce ammonia emissions to air from slurry stores (Condition 6).
- To use one or a combination of the applicable techniques listed in BAT 30 to reduce ammonia emissions to air from each house for pigs. In this case the technique specified is "a vacuum system for frequent slurry removal to external storage" (Condition 6).
- To complete an estimation of ammonia emissions from the houses in accordance with BAT 25 (Schedule C).

The potential for ammonia emissions from the landspreading of organic fertiliser 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 licensee states in the application that there has been no historical contamination of groundwater at the site.

The RD requires the licensee to do the following:

- To use a combination of the techniques listed in BAT 18 to prevent emissions to soil and water from slurry collection, piping and from a store (Condition 6).
- To have a leak detection system in place to all storage tanks, container and drum storage areas that contain liquid material other than water (Condition 3).

6.2.3 Other emissions to ground/groundwater

There is an existing septic tank and percolation area on-site for the treatment of sanitary effluent. The RD includes a standard condition which requires the licensee 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: Domestic Waste Water Treatment Systems (p.e. < 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 two discharge points (SW1 and SW2) into two soakaways on-site, as detailed in Appendix 1(b) of this report (Storm Drainage Layout Plan). All of the discharge points will have a silt trap installed prior to discharge, within three months of the date of grant of the licence. Table 6.2 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 body.

Table 6.2: Stormwater discharge point details

Discharge Reference	Monitored parameters (monitoring frequency)	Abatement	Drainage areas	Discharging to
SW1	Visual (weekly); COD/BOD (quarterly)	Silt trap	Roofs and clean yards	Soakaway
SW2	Visual (weekly); COD/BOD (quarterly)	Silt trap	Roofs and clean yards	Soakaway

The installation is located within both the Ballinhassig East groundwater body (IE_SW_G_004) and the Midleton groundwater body (IE_SW_G_058). Both groundwater bodies have 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 ground 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 are 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 slurry storage tanks under the animal houses.

The licensee has stated that the proposed and existing 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 rainwater collection and drainage system for all animal houses on-site be maintained (Condition 6).
- That an inspection chamber at the outlet of the storm water drainage system be provided and maintained, within three months of the date of grant of the licence, for discharge point SW2 and that an inspection chamber at the outlet of the storm water drainage system be maintained for discharge point SW1 (Condition 3).
- That silt traps be provided and maintained at the installation to ensure that all storm water discharges from the paved areas of the installation pass through the silt trap in advance of discharge (Condition 6).
- 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 (Condition 6).
- That the storm water discharge is visually inspected weekly and monitored for Chemical Oxygen Demand (COD) or Biological Oxygen Demand (BOD) quarterly, in accordance with Schedule C.2.3 *Monitoring of Storm Water Discharges*.

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 165 m away.

There has been no history of noise complaints at the installation and none have been received by the Agency.

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).

In accordance with the EPA document Guidance Note for Noise: *Licence Applications, Surveys and Assessments in relation to Scheduled Activities (NG4)* (2016), the day time ELV has been changed from 55dB LAeq to 55dB LAr, to allow for corrections for tonal noise, and an evening time ELV has been introduced.

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 licensee employs 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	190
General Waste	10
Veterinary Waste	<1
Fluorescent Light Tubes	<1

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 are be stored temporarily on-site in covered skips, before being transported to an appropriately licensed installation.

A 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 licensee 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	27,690 m ³
Number of storage tanks/stores on-site	18

Total storage capacity on-site (ex. freeboard and with a max. depth of 800 mm in the under-house slurry tanks)	20,976 m ³
No. weeks storage on-site	39
End use off-site	Landspreading.

The pig slurry produced by the animals is contained temporarily in the slatted tanks under each animal house. The areas around the houses will be concreted and designed such that any pig slurry produced here during animal loading and unloading is diverted to the slurry storage tanks under the houses.

Soiled/wash water is generated by the activity during routine cleaning and at the end of each batch of pig. The farm operates an all in-all out-batch production system. Once the pigs are removed, the houses are soaked to reduce water and energy usage, followed by high power washing of the animal houses and a drying period, before the houses are restocked. The resulting soiled/wash water is washed through the slatted floors into the slurry tanks below, adding to the volume of organic fertiliser produced. The wash water may contain insignificant quantities of disinfectant from the previous washing cycle.

As outlined previously in this report, the licensee has stated they will comply with the requirements of BAT 30 (to reduce ammonia emissions to air from each pig house) by employing a vacuum system for frequent slurry removal to external storage. The slurry will be removed under vacuum via a sluice-based system to three covered external slurry storage tanks on-site (one existing and two proposed). Slurry storage infrastructure is outlined in Appendix 1(c) of this report (Pig Manure Drainage Layout Plan).

In line with the recommendations in the associated BREF document, the RD requires the licensee to remove slurry from the tanks under the houses at least fortnightly unless the slurry levels are less than 500 mm. The requirements for frequent slurry removal, a maximum allowable slurry level of 800 mm and level indicator alarms set for 500 mm and 750 mm will apply to each of the slurry tanks under the houses.

Condition 8 of the RD requires that the licensee 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 Regulations¹¹. The licensee is 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) Regulations¹² impose legal requirements on the licensee, the 'commercial haulier' and the user of the organic fertiliser. These requirements

¹¹ S.I. No. 113 of 2022 European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022.

¹² 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

include use of a 'commercial document' to record details required under the regulations. The licensee is 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 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 licensee has identified recipient farmers who are available and seeking to accept organic fertiliser from the installation as fertiliser for their farms in County Cork. The licensee has calculated that these farms have a requirement for up to 62,532 m³ organic fertiliser per year based on the nitrogen balance for the farms. This is more than double the estimated volume of organic fertiliser that will be produced on-site.

The Nitrates Regulations (Article 10(1)) and Condition 3 of the RD require that a minimum of 26-weeks' storage capacity for organic fertiliser is provided. The total organic fertiliser storage capacity on-site, 20,976 m³ (net of freeboard) or 39 weeks, is sufficient to meet the 26-week storage capacity requirement in the Nitrates Regulations. This is the storage capacity with the slurry level restricted to a maximum of 800 mm in the under-house slurry tanks.

The quantity of nitrogen and phosphorus generated by the activity at the proposed licence capacity of 1,500 sows in an integrated unit is approximately 130,500 kg N and 25,500 kg P per annum, 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 organic fertiliser:

- To monitor the total nitrogen and phosphorus excreted in manure annually, in accordance with BAT 24 (Condition 6).
- Implementation of frequent slurry removal (Condition 6).
- That all storage tanks are integrity assessed before utilisation for new tanks, and at least once every three years thereafter for all tanks on-site (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 200mm from the top of covered organic fertiliser storage tanks and 300mm 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 at the proposed capacity of 1,500 sows in an integrated unit are given below.

Table 9.1: Estimated resource usage

Resource	Quantity per annum
Electricity	630 MWh
Water (on-site well)	30,295 m ³
Water Abstraction registration required:	Yes (Reg. No. R02515)
Feed	11,000 t
Heating Oil	52 m ³
Diesel	5,500 litres

The licensee 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 only source of water for the activity is an on-site well. The RD requires the licensee to carry out monitoring of the well annually. The installation is located on the Ballinhassig East groundwater body (IE_SW_G_004) which currently has a WFD status of good. The bedrock underlying the installation is classified as a locally important aquifer which is moderately productive in local zones.

In accordance with the European Union (Water Policy) (Abstractions Registration) Regulations 2018 (S.I. No. 261 of 2018) those who abstract 25m³ of water or more per day are required to register their water abstraction with the EPA. The licensee has registered the abstraction, ref. no. R02515.

The RD specifies that the licensee 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 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

<p>Potential for an accident or hazardous/emergency situation to arise from activities at the installation</p>	<ul style="list-style-type: none"> - Surface water and/or ground/groundwater contamination during animal 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 emissions of noise, dust or odour such as to cause nuisance outside the site boundary.
<p>Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the installation</p>	<ul style="list-style-type: none"> - The provision and maintenance of adequate wash water and slurry storage facilities. - The storage of potentially polluting liquids in bunded 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 slurry storage tanks under the animal houses.
<p>Additional measures provided for in the RD</p>	<ul style="list-style-type: none"> - Integrity assessment and maintenance of the slurry storage tanks as required (Condition 6). - The regular visual examination and inspection of the storm water discharge points 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 licensee has provided a list of measures to be taken in the event of site closure/cessation of activity. These measures are listed

section K of the application. Condition 10 of the RD requires the proper closure of the activity with the aim of protecting the environment.

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 licensee, in accordance with Stages 1 to 3 of European Commission Guidance¹³.

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 licensee to take certain measures to ensure that there is, to the satisfaction of the Agency, no remaining risk of environmental pollution at the site.

12. Fit and Proper Person

Technical Ability

The licensee has held a licence issued by the EPA since 2008, P0790-01 and P0790-02. It is considered that the licensee has demonstrated the technical knowledge required to operate this installation.

Legal Standing

Neither the licensee nor any relevant person has relevant convictions under the Environmental Protection Agency Act 1992, as amended, 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 licensee can be deemed a Fit and Proper Person for the purpose of this review.

13. Submissions

¹³ European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions.

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

Submissions			
1.	Name & Position Mr Peter Sweetman	Organisation: Peter Sweetman & Associates	Date received: 17 July 2018
<p>Issues raised:</p> <p><i>The submission provides a copy of judgment of the 12 April 2018 by the CJEU, in relation to Case C-323/17 and quotes the ruling from that judgment as follows:</i></p> <p><i>"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."</i></p> <p>Agency Response:</p> <p>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 conducted as part of the licence review application.</p> <p>There are seven European sites within 20 km of the installation. Any European sites more than 20 km distance from the installation fall well outside of the potential zone of influence of the activity, so it was not necessary to consider them further.</p> <p>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 licensee to submit a NIS.</p> <p>Qualifying interests and conservation objectives of each individual site were examined as part of that assessment.</p> <p>The Appropriate Assessment section details the results of the appropriate assessment conducted as part of the licence review application.</p>			
2.	Name & Position Mr Peter Sweetman	Organisation:	Date received: 28 January 2019

Submissions			
	Peter Sweetman & Associates		
	<p>Issues raised:</p> <p><i>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:</i></p> <p><i>"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."</i></p> <p>Agency response:</p> <p>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.</p> <p>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 (Programmatiese 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.</p>		
3.	<p>Name & Position:</p> <p>Mr Peter Sweetman</p>	<p>Organisation:</p> <p>Peter Sweetman and on behalf of Wild Ireland Defense CLG</p>	<p>Date received:</p> <p>13 October 2020</p>

Submissions

Issues raised:

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, 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 European Site. An Appropriate Assessment Screening Determination was issued on 21 October 2019, which included specific reasons for determining that a Stage 2 Appropriate Assessment was required. 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 review application. The licensee 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.

4.

Name & Position

Mr. Peter Sweetman

Organisation:

Peter Sweetman and
Wild Ireland Defense CLG

Date received:

27 October 2022

Issues raised:

The submission states that 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:

Submissions			
	<p>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 review application assessment, as appropriate. The landspreading of organic fertilizer was considered in carrying out AA and regard was had to the regulatory systems in place, i.e. <i>European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022</i>.</p>		
5.	<p>Name & Position Aislinn Byrne</p>	<p>Organisation: Member of the public</p>	<p>Date received: 14 December 2022</p>
	<p>Issues raised:</p> <p><i>The submission reads as follows:</i></p> <p><i>“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.</i></p> <p><i>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”.</i></p> <p><i>The submission goes on to list, by registration number, the pig and poultry licence applications upon which the submission is to be made.</i></p> <p>Agency response:</p> <p>The assessment of this application included an EIA screening, an examination of the submitted EIS and an 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:</p> <ul style="list-style-type: none"> (a) human beings, fauna and flora; (b) soil, water, air, climate and the landscape; (c) material assets and the cultural heritage; (d) the interaction between the factors referred to in points (a), (b) and (c). <p>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.</p> <p>The submission mentions animal cruelty concerns and Ireland has legislation governing animal welfare, which is the responsibility of the DAFM.</p> <p>The submission also mentions financial implications of intensive farming on “smaller farmers”. The viability of a business, including farming, is beyond the scope of the EPA Licensing Process.</p>		

Submissions			
6.	<p>Name & Position: Laura Broxson</p>	<p>Organisation: National Animal Rights Association</p>	<p>Date received: 17 December 2022</p>
<p>Issues raised:</p> <p><i>The issues raised in the submission are as follows:</i></p> <ul style="list-style-type: none"> • <i>The submitter states that the application should be refused as it is "not ethically acceptable to kill or consume any living creature".</i> • <i>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".</i> • <i>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.</i> • <i>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".</i> <p><i>The submission goes on to list, by registration number, the pig and poultry licence applications upon which the submission is to be made.</i></p> <p>Agency response:</p> <p>The principle of whether or not it is ethical to consume meat is beyond the remit of the EPA.</p> <p>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.</p> <p>All 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.</p>			
7.	<p>Name & Position: Caroline Rowley</p>	<p>Organisation: Ethical Farming Ireland</p>	<p>Date received: 30 December 2022</p>
<p>Issues raised:</p> <p><i>The issues raised in the submission are as follows:</i></p> <ul style="list-style-type: none"> • <i>The submitter cites the Agency's responsibilities under Section 52(2) of the Environmental Protection Agency Act 1992, in relation to the Agency's need to keep itself informed of policies and objectives of public authorities, of the requirement to have regard for the need for</i> 			

Submissions

high standard of environmental protection and the requirement to have regard to the need for precaution in relation to potentially harmful effects of emissions.

- *The submission discusses the government's targets for reducing greenhouse gas emissions under the programme for government, DAFM's 'Ag Climatise – A Roadmap towards Climate Neutrality' (Ag Climatise) and the Climate Action Plan 2023.*
- *The submission states, the Programme for Government (inter alia) commits Ireland to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050.*
- *It cites the following from the government's Ag document: "In total, approximately 80% of the agricultural GHG inventory is related directly to the number of animals and the management of the manure they produce. This roadmap is based on stabilising methane emissions and a significant reduction in fertiliser related nitrous oxide emissions, leading to an absolute reduction in the agricultural greenhouse gas inventory by 2030. Any increase in biogenic methane emissions from continually increasing livestock numbers will put the achievement of this target in doubt".*
- *The submission notes that the Climate Action Plan 2023, emphasises that agriculture is the largest source of Ireland's emissions (33.3%).*
- *The submission notes that the application documents do not model chicken or pig population numbers; therefore, it was assumed they remain stable.*
- *The submission states that approval of the application is likely to exacerbate Ireland's ongoing breach of its National Emission Reduction Target relating to ammonia. It again states that the relevant documents do not appear to model pig and poultry populations, and instead appear to assume the populations of these livestock types remains stable.*
- *The submission states that the increase in pig or poultry numbers proposed in the application contradicts this assumption, with the resulting increase in greenhouse gases and ammonia increasing the risk of Ireland breaching (a) the greenhouse gas emissions targets to which it has committed and (b) the exacerbating its existing non-compliance with ammonia targets.*
- *This amounts to a failure of duty by the Agency and would breach sections 52(2)(a), (b) and (c) of the EPA Act.*
- *Ethical Farming Ireland urges the Agency to reject the application.*

Agency response:

- The Agency, in conducting its licence assessments, has regard to the government's targets for reducing greenhouse gas emissions, the Ag Climatise document, and the Climate Action Plan 2023, as detailed in this report.
- Issues in relation to climate are discussed in the EIA (Climate) section of this report in terms of Government policy, the Ag-Climatise document and the Climate Action Plan 2023. Energy efficiency is

Submissions			
	<p>discussed in the Energy Efficiency and Resource Use section of this report.</p> <ul style="list-style-type: none"> • Ireland is addressing greenhouse gas emissions from the agricultural sector through the implementation of 'Ag Climatise – A roadmap towards Climate Neutrality'. Biogenic methane is primarily associated with ruminants, which produce methane while digesting their food, and not with pigs, which are a monogastric animal. Greenhouse gas emissions from the installation are discussed further in the EIA (Climate) section of this report. • Ammonia emissions are discussed in the Emissions to Air (Ammonia) and EIA (Air) sections of this report. Regard to government policy and national plans are discussed in these sections. • The EPA has published guidance on how applicants and licensees should assess the predicted impact of ammonia emissions from their proposed installation. This application has been assessed in accordance with that guidance document. The site will be required to operate in accordance with its licence requirements including BAT which will ensure minimisation of ammonia emissions. This topic is discussed further in the ammonia section and EIA sections of this report. <p>The Agency is satisfied that this licence assessment meets the requirements of sections 52(2)(a), (b) and (c) of the EPA Act.</p>		
8.	Name & Position	Organisation:	Date received:
	Mr. Peter Sweetman	Peter Sweetman	05 January 2023
	<p>Issues raised:</p> <p><i>The points raised in the submission are as follows. The submitter quotes various sections of the application documentation, copied below, the submitters points in relation to these sections are presented, beneath the application quotes, in bold text:</i></p> <ul style="list-style-type: none"> • <i>Submission re P0790-03 Eoin O'Brien</i> <i>The applicant is fully aware of his obligations under S.I. 113 of 2022 and he will meet all the requirements under this Directive with the proposed application.</i> Which is it the regulations or the directive • 5.2 CUMULATIVE IMPACTS <i>There are other agricultural activities ongoing close to the current application site, therefore cumulative impacts arising from the operation of these farms together were considered. All farms, regardless of whether licensed by the EPA or not, are required to operate within the legalisation defined in S.I. 113 of 2022 regarding manure storage, minimisation of soiled water and general good agricultural practice, etc. Therefore, cumulative impacts arising from the combined operation of these activities with the proposed operation of the pig farm at Kilcolea Lower will be negligible.</i> 		

Submissions

This is based on a presumption of compliance which is not evidence

legalisation defined in S.I. 113 of 2022 this is meaningless, or at best an uninformed legal opinion,

without any reference to the conclusions of the CJEU

- ? *Following detailed modelling and a NIS, is the process contribution (PC) $\leq 1\%$ of the critical level for ammonia and $\leq 1\%$ of the critical load for nitrogen deposition?*

This threshold is exceeded at Location 8 (Blackwater River SAC – Old Oak Woodlands) for both ammonia and nitrogen, which will therefore require a cumulative/ in-combination assessment, taking into account IAI which meet the following criteria:

The threshold is exceeded at the Blackwater River SAC It is not mitigated with reasonable scientific certainty.

- **6 MITIGATION MEASURES**

*In order to minimise emissions from the pig facility at Killeagh and in order to protect certain designated sites and species, as well as local, undesignated habitats, a number of mitigation measures **should** be considered. Measures have also been **suggested** that will help to protect the local biodiversity of the surrounding area and to ensure the protection of local wildlife.*

*? The pigs **should** be fed on low protein diets, which will minimise the levels of N and ammonia in the manure. A low protein diet will result in a reduction of 25% of the ammonia emissions, as every 1% reduction in crude protein in the diet will result in approximately 10% reduction in N excretion.*

? Techniques for the reduction of emissions from the pig houses must be employed on the farm. These are outlined in the document Best Available Techniques Reference Document for the Intensive Rearing of Poultry or Pigs (http://ejppcb.jrc.ec.europa.eu/reference/BREF/IRPP/JRC107189_IR_PP_Bref_2017_published.pdf)

Techniques for the reduction ... they don't appear to be proposed in the licence application or the EIAR

- **MANAGEMENT AND LAND-SPREADING OF ORGANIC FERTILISER**

*In order to avoid any reductions in water quality within the Blackwater (Cork) catchment as a whole, all organic fertilisers **should** be used in accordance with S.I. 113 of 2022 European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2022). The following measures may be considered:*

There is no evidence that this will work, the water quality of the Blackwater continued to worsen.

The requirement if the habitats Directive is to restore.

Has this unit caused emissions to the river?

Submissions

- **7 CONCLUSIONS**

*This Natura Impact Statement has concluded that with the mitigation **measures outlined** in this document and with the operation of the facility in line with the figures used in the Ammonia Impact Report, that the proposed operation of the pig farm at Annistown will not lead to any significant impacts upon the designated sites identified, specifically the Blackwater River SAC.*

This is an uninformed opinion not reasonable scientific certainty.

Agency response:

I am satisfied that I have sufficient information available to complete an assessment of cumulative impacts of this project in combination with other plans or projects. The Environmental Impact Assessment and Appropriate Assessment sections of this report include assessment of the cumulative effect from the proposed activity and other activities/developments. The judgments of the CJEU form part of this review application assessment, as appropriate.

The specific running components of the ventilation system are conditioned in Schedule C of the RD. Conditions in relation to BAT 3 and 30 are included in the RD including the requirement for low protein feed (for all pig types except weaners) and the requirement for frequent slurry removal from the animal houses. These techniques were incorporated into the ammonia modelling provided by the licensee and will significantly reduce ammonia emissions. The Agency has set the emission limits in Schedule B.1 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 to upper range set out in the CID. Compliance with licence conditions is a legal requirement on all licensees and is enforced by the Agency's Office of Environmental Enforcement (OEE).

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 licensee and conditioned in the RD. As per the Agency's guidance document titled "Assessment of the impact of ammonia and nitrogen on Natura sites from intensive agriculture installations" (EPA, March 2023), the licensee was required to submit a cumulative/in-combination assessment as part of their NIS, which concluded that there are no other nearby installations with potential to contribute a significant impact at the Blackwater SAC.

The landspreading 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. Landspreading of organic fertiliser occurs outside of the licensed boundary and as such does not form part of the project in respect of which the Agency is considering a licence application.

9.	Name & Position:	Organisation:	Date received:
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Submissions		
	Mr Peter Sweetman	Peter Sweetman
		27 March 2023
	<p>Issues raised:</p> <p><i>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:</i></p> <p><i>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.</i></p> <p>Agency response:</p> <p>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 was considering a licence application. Ultimately, the locations on which landspreading of organic fertiliser from the installation may occur, can vary across and within any given year.</p> <p>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.</p> <p>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."</p> <p>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.</p>	

14. Consultations

14.1 Cross Office Consultation

The Environmental Licensing Programme (ELP) 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.

I consulted OEE in relation to this site. In general, the OEE have no significant concerns regarding the proposed changes to the licensable activity.

A remote compliance assessment by OEE in 04 May 2021 raised no issues or observations. At the time of the visit, animal numbers in recorded in the stock register were in compliance with the existing licence, P0790-02.

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 activity 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 Ballymacoda Bay SPA, Ballymacoda (Clonpriest & Pillmore) SAC, Ballycotton Bay SPA, Great Island Channel SAC, Cork Harbour SPA, Blackwater River (Cork/Waterford) SAC and Blackwater Estuary SPA.

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, and for this reason determined to require the licensee to submit a Natura Impact Statement.

- Air emissions have been modelled by the Agency using a screen model (SCAIL Agriculture, <http://www.scail.ceh.ac.uk>). The model results indicated that the potential for significant adverse impact of emissions to air and their consequential potential impact on sensitive receptors cannot be ruled out due to elevated ammonia emissions at Ballymacoda Bay SPA and Ballymacoda (Clonpriest & Pillmore) SAC and due to elevated nitrogen deposition at Blackwater River (Cork/Waterford) SAC.

A NIS was received by the Agency on 10 July 2018. A revised NIS was received on 13 April 2021 and 27 October 2022.

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 activity, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Ballymacoda Bay SPA, Ballymacoda (Clonpriest & Pillmore) SAC, Ballycotton Bay SPA, Great Island Channel SAC, Cork Harbour SPA, Blackwater River (Cork/Waterford) SAC and Blackwater Estuary SPA, 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 7.9 km away.
- The storm water run-off from the roof and paved areas will be directed into two soakaways on-site. There will be no other direct discharge to surface waters or groundwater within the installation boundary.
- There is no surface water pathway connecting the installation to any European site.
- The storm water collection system will include a silt trap on all storm water lines draining paved areas 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 the distance between the activity and a European site and given that there is no surface water pathway connecting the installation with a European Site.
- 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.
- Organic fertiliser (pig slurry) is and will be used as a fertiliser on 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 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 7.9 km south-east of the installation boundary (Ballymacoda Bay SPA) 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 intensive pig or poultry rearing installations within a 5 km radius of the installation. There are two licensed food and drink installations within a 5 km radius of the installation. These installations are each required to operate in accordance with the conditions of an EPA licence.
- The licence review is for the re-development of parts of the site. The upgrade of this site and reviewed licence will lead to improved environmental standards and efficiencies.
- The licensee has proposed a number of mitigation measures which comply with BAT to minimise emissions of ammonia and therefore, nitrogen deposition at the designated sites.
- The licensee submitted a full site-specific air dispersion model as part of the completion of a NIS. The modelling concluded that process emissions from the proposed pig numbers at the installation will not contribute significantly to

ammonia levels at European sites. The specific running components of the ventilation system will be controlled and conditioned in the RD as is the requirement for low protein feed (for all pig types except weaners) and frequent slurry removal from the animal houses.

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 Ballymacoda Bay SPA, Ballymacoda (Clonpriest & Pillmore) SAC, Ballycotton Bay SPA, Great Island Channel SAC, Cork Harbour SPA, Blackwater River (Cork/Waterford) SAC and Blackwater Estuary SPA.

16. Environmental Impact Assessment

16.1 EIA Introduction

The EIS submitted to the Planning Authority as part of planning application reference 12/6635 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.

The application was accompanied by an Environmental Impact Statement (EIS). As part of this environmental impact assessment, I have carried out an examination, analysis and evaluation of all the information provided by the licensee (including the EIS), the existing licence, Register Number: P0790-02, information received through consultation, the documents associated with the assessments carried out by Cork County Council and An Bórd Pleanála, and the issues that interact with the matters that were considered by those authorities 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 when supplemented by my assessment as contained in this report.

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, and the landscape, material assets and cultural heritage.

This Inspector's Report addresses the interaction between those effects. 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 Cork County Council, An Bord Pleanála and the Agency under the relevant section of the EPA Act.

Cork County Council confirmed that the EIS submitted to the planning authority was superseded by the EIS submitted to An Bord Pleanála as the planning application (Ref: 12/6635) was granted on appeal. An Bord Pleanála confirmed that the EIS dated December 2012, is identical to the original EIS submitted with the appeal and does not include subsequent information submitted to the Board by the licensee. The decision to grant planning permission (Ref: PL.04.241892) was made by the Board after the carrying out of an environmental impact assessment.

16.3 Alternatives

The matter of alternatives is addressed in Chapter 3.1 of the EIS and Chapter 2 of the EIS addendum. It examines alternative structures, sites, layouts, designs, and processes. As the installation has been located on its current site since the 1960s, the consideration of an alternative location was not deemed appropriate. The existing site was considered the most suitable due to topography, access and distance from third party dwellings. The house design is in line with BAT. The process chosen offers the licensee the best fit between proposed and existing enterprises. In this regard, I consider that the matter of the examination of alternatives has been satisfactorily addressed.

16.4 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:

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

16.4.1 Human Beings

Identification, Description and Assessment of Effects

Human beings are mainly addressed in Chapters 3 and 7 of the EIS and Chapter 3 of the EIS addendum. The potential direct and indirect effects on human beings are associated with emissions to air, including dust and odour, noise emissions, emissions to water, waste generation, and accidental emissions. Should emissions exceed environmental quality standards this could have implications for beings.

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 human beings 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 human beings 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 human beings, provided by the licensee, 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 human beings.

16.4.2 Fauna and Flora

Identification, Description and Assessment of Effects

Fauna and Flora are addressed in Chapter 4 and Appendix 1 of the EIS, in Chapter 3 and Appendices 1.A (NIS) of the EIS addendum and in the revised NIS submitted as additional information (Refer to the Appropriate Assessment section of this report). The EIS and NIS describe the habitats and species at and in the vicinity of the installation. No protected species were identified on-site during a site survey undertaken as part of the planning application. One protected species, the otter *Lutra lutra*, was recorded on the NPWS biodiversity database within 1 km of the site. There are seven Natura 2000 designated sites within 20 km of the application site, the closest being approximately 7.9 km away from the installation. The application site is in a rural area. The land use surrounding the site is predominantly agricultural and the dominant habitats include improved agricultural grassland and tillage land.

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.

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 licensee, 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.

16.4.3 Soil

Identification, Description and Assessment of Effects

Soil is addressed in Chapter 3 and the Groundwater Risk Assessment appendix of the EIS. The installation is an existing piggery in an agricultural area. Land use in the surrounding area is mostly improved agricultural grassland. Deep poorly drained mineral soils are underlying most of the southern portion of the site, whereas the northern part of the site is underlain by deep well drained mineral soils. Any potential contamination issues are dealt with in the 'baseline report' section of this report.

The potential direct and indirect effects on soil are associated with emissions to air, emissions to water, and accidental emissions. Should emissions exceed environmental quality standards this could have implications 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 licensee, 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.

16.4.4 Water

Identification, Description and Assessment of Effects

Water is mainly addressed in Chapter 5 of the EIS and in Chapter 3 of the EIS addendum. The installation is located within both the Ballinhassig East groundwater body (IE_SW_G_004), and the Middleton groundwater body (IE_SW_G_058), both of which currently have a WFD status of good. The groundwater beneath the site has a vulnerability rating of moderate to high.

The site lies within the catchment of the Womanagh River, which flows east to Youghal Bay. The Dower River, a tributary of the Womanagh River, flows south and runs along the western boundary of the site. There is no direct connection from the installation

to the river. Storm water from the roofs and yard areas discharges to two soakaways on-site via silt traps.

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 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 EPA licensed intensive pig or poultry rearing installations within a 5 km radius of the installation. There are two licensed food and drink installations within a 5 km radius of the installation. These installations are each required to operate in accordance with the conditions of an EPA licence. Due to the nature of those activities and the controls in place, it is considered that there will be no significant cumulative effect from storm water discharges from the activity and from other activities or 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.

The National River Basin Management Plan (2018-2021) was published in April 2018. 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/LA/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 provided by the licensee, 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.

16.4.5 Noise

Identification, Description and Assessment of Effects

Noise is mainly addressed in Chapter 7.2 of the EIS and Chapter 3 of the EIS addendum. The potential direct and indirect effects of noise associated with the operation of the activity are 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 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 noise are detailed in the 'Noise' section of this report.

Conclusions

I have examined all the information on noise provided by the licensee, 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.

16.4.6 Air

Identification, Description and Assessment of Effects

Air is mainly addressed in Chapter 7.1 of the EIS and Chapter 3 of the EIS addendum. The potential direct and indirect effects on air are associated with emissions to air of ammonia, dust and odour from the animal 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 fauna and flora within and beyond the site boundary. General site dust and odour emissions have the potential to impact human health 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 two licensed food and drink installations within 5 km of the installation. Emissions to air from these activities have been considered during the licensing process for each of these installations and as they are required to comply with the conditions of their licences, these installations should not have any significant emissions of odour, dust or ammonia under normal operations. In this assessment, it has already been determined that air emissions from the installation will not significantly affect local air quality.

As stated previously, the Agency has issued a guidance document to assist applicants and licensees 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 sites from intensive agriculture installations" (EPA, March 2023).

Modelling of odour emissions was undertaken by the licensee 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 2022' (EPA 2022), which contains the most recent data, ammonia emissions in 2020 from the pig sector were 6.3 kt (or 5.1% of Ireland's National emissions). This installation will emit 27 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 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 3.8% 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 licensee, 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).

16.4.7 Climate

Identification, Description and Assessment of Effects

Chapters 3 and 7 of the EIS addendum address 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 (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF₃) and sulphur hexafluoride (SF₆).

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 CO₂ might be minimised.

Indirect emissions of CO₂ 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 licensee is also required to address electricity usage as part of energy efficiency management.

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.

In relation to cumulative effects, any combustion process will inevitably produce quantities of gases, including GHGs, which have the potential to impact on air quality. However, it is usually the other combustion gases that negatively impact air quality as opposed to the greenhouse gases. In this assessment, it has already been determined that emissions from the installation will not significantly affect local air quality, individually or cumulatively.

In December 2022, the Irish Government released the 'Climate Action Plan, 2023', under the 'Climate Action and Low Carbon Development (Amendment) Act 2021', which will support Ireland's transition to Net Zero and achieve a climate neutral economy by no later than 2050.

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 licensee, 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 and climatic factors.

16.4.8 The Landscape

The potential direct and indirect effects on the landscape are described in Chapter 8 of the EIS and Chapter 3 of the EIS addendum. 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 identified.

Mitigation and Monitoring

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

The Landscape Conclusions

An Bord Pleanála has identified, described and assessed the likely significant direct and indirect effects of the development on the landscape. Their assessment concluded that “the overall impact on the local landscape would be broadly neutral but I would recommend conditions to ensure the proposed planting of the bunds is carried out appropriately in order to soften the overall effect on the landscape”. The RD does not propose to include any additional mitigation measures in relation to landscape.

16.4.9 Material Assets and the Cultural Heritage

16.4.9.1 Material Assets

Identification, Description and Assessment of Effects

Chapter 10 of the EIS and Chapter 3 of the EIS addendum address 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 An Bord Pleanála 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 be significant. 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 identified.

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 licensee, 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.

An Bord Pleanála has also identified, described and assessed the likely significant direct and indirect effects of the development on material assets. Their assessment concluded "I do not consider that there would be any quantitative loss in economic terms or in material assets to the area".

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

16.4.9.2 Cultural Heritage

Identification, Description and Assessment of Effects

Chapter 9 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.

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

Mitigation and Monitoring

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

Cultural Heritage Conclusions

An Bord Pleanála has identified, described and assessed the likely significant direct and indirect effects of the development on cultural heritage. Their assessment concluded that "I do not consider that there would be any impacts on cultural heritage or a requirement for any mitigation". The RD does not propose to include any additional mitigation measures in relation to cultural heritage.

16.4.9.3 Overall Conclusions for Material Assets and Cultural Heritage

I have examined all the information on material assets and cultural heritage provided by the licensee, 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 and cultural heritage.

16.4.10 Interactions Between Environmental Factors

Interactions of effects are considered in Chapter 12 of the EIS addendum. 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, land, soil, water, air, climate, landscape, material assets and cultural heritage, 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.

16.5 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 licensee, and the submissions from the planning authorities 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 / 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 €3,153, which reflects the anticipated enforcement effort required and the cost of monitoring. This is the same enforcement charge as already set out for 2023 for the installation.

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 Environmental Protection Agency Act 1992, as amended 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



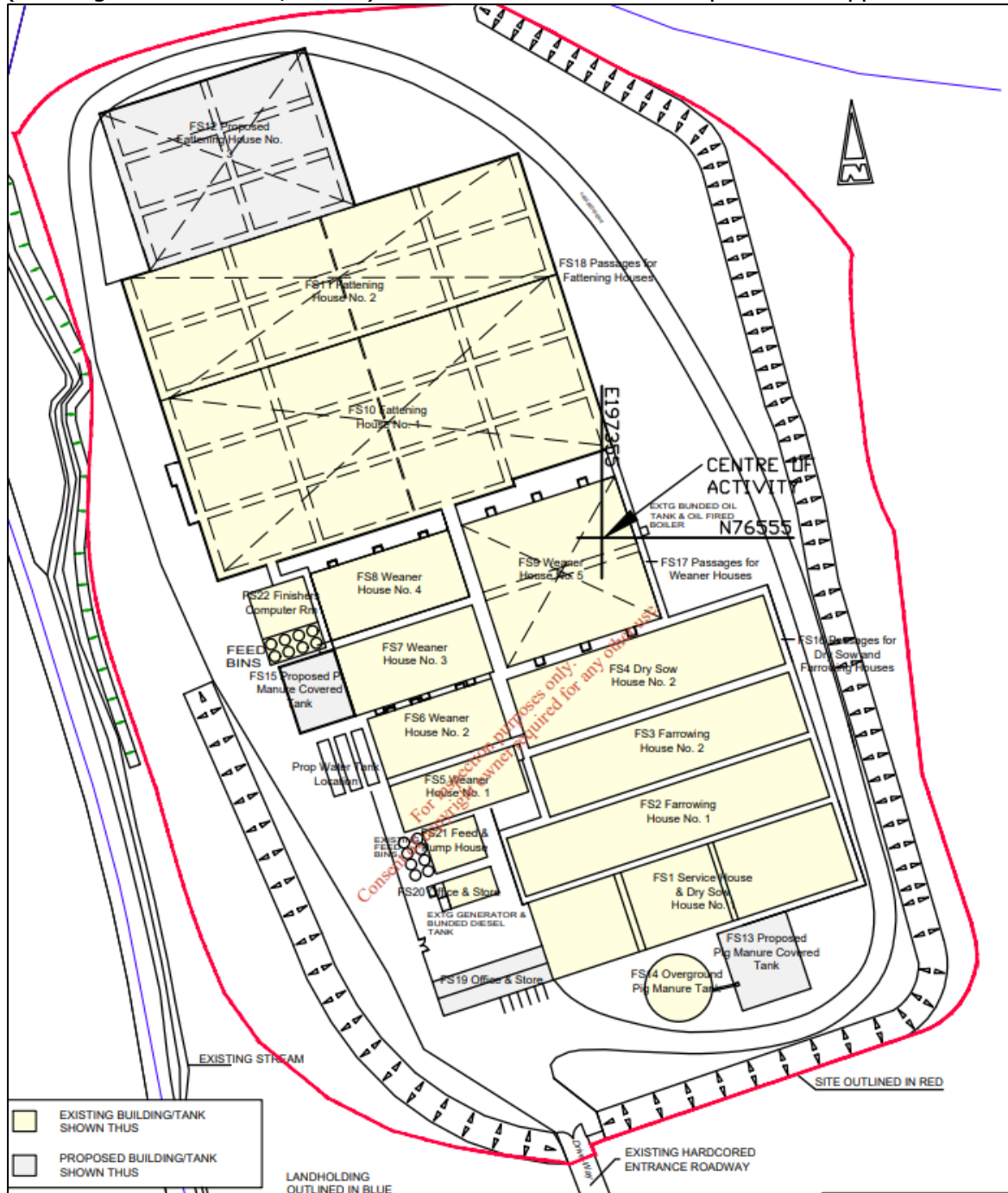
Linda Cahill, ELP Inspector

Procedural Note

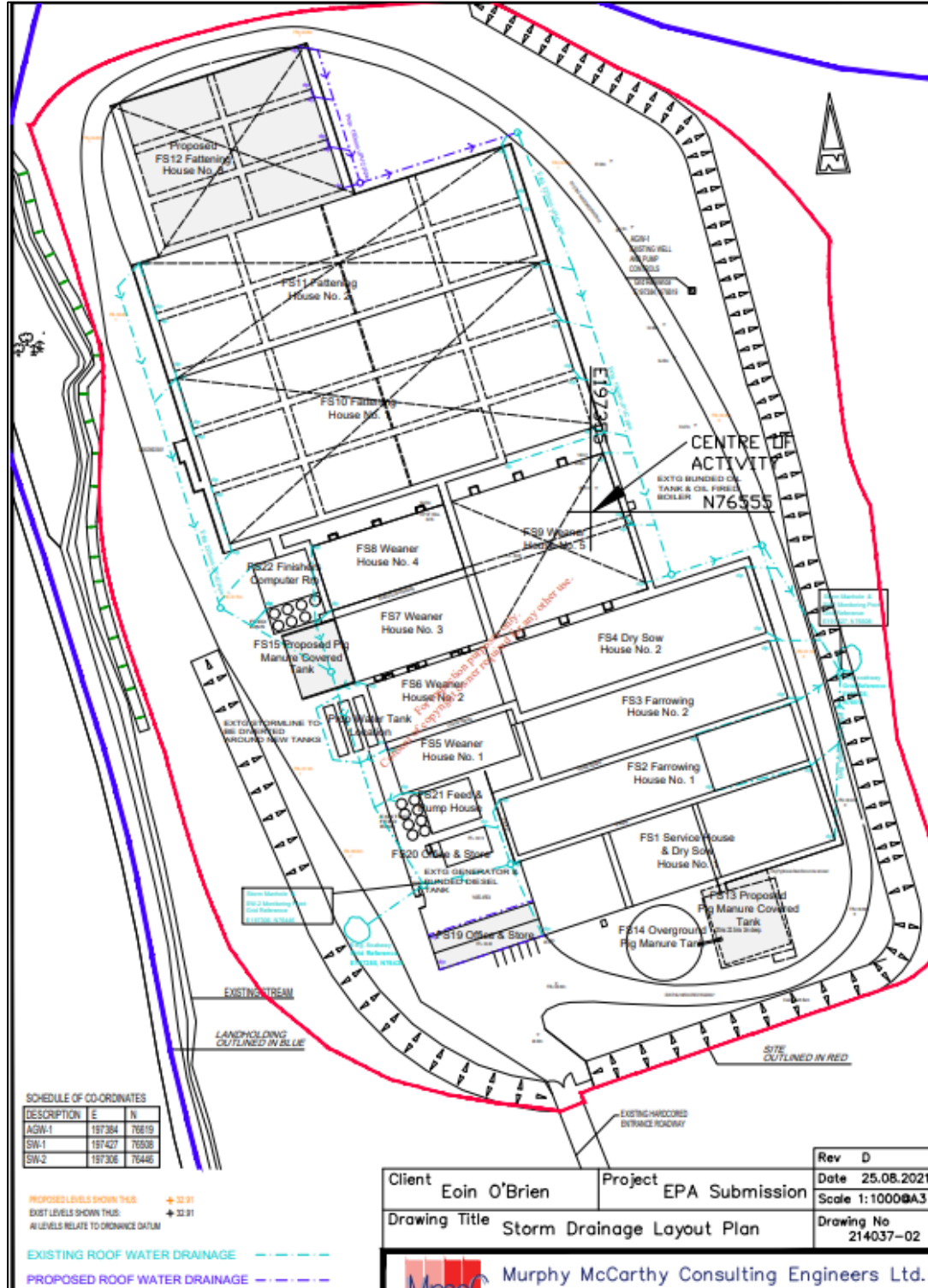
In the event that no objections are received to the Proposed Determination on the application, a licence will be granted in accordance with Section 87(4) of the Environmental Protection Agency Acts 1992 as amended, as soon as may be after the expiration of the appropriate period.

Appendices

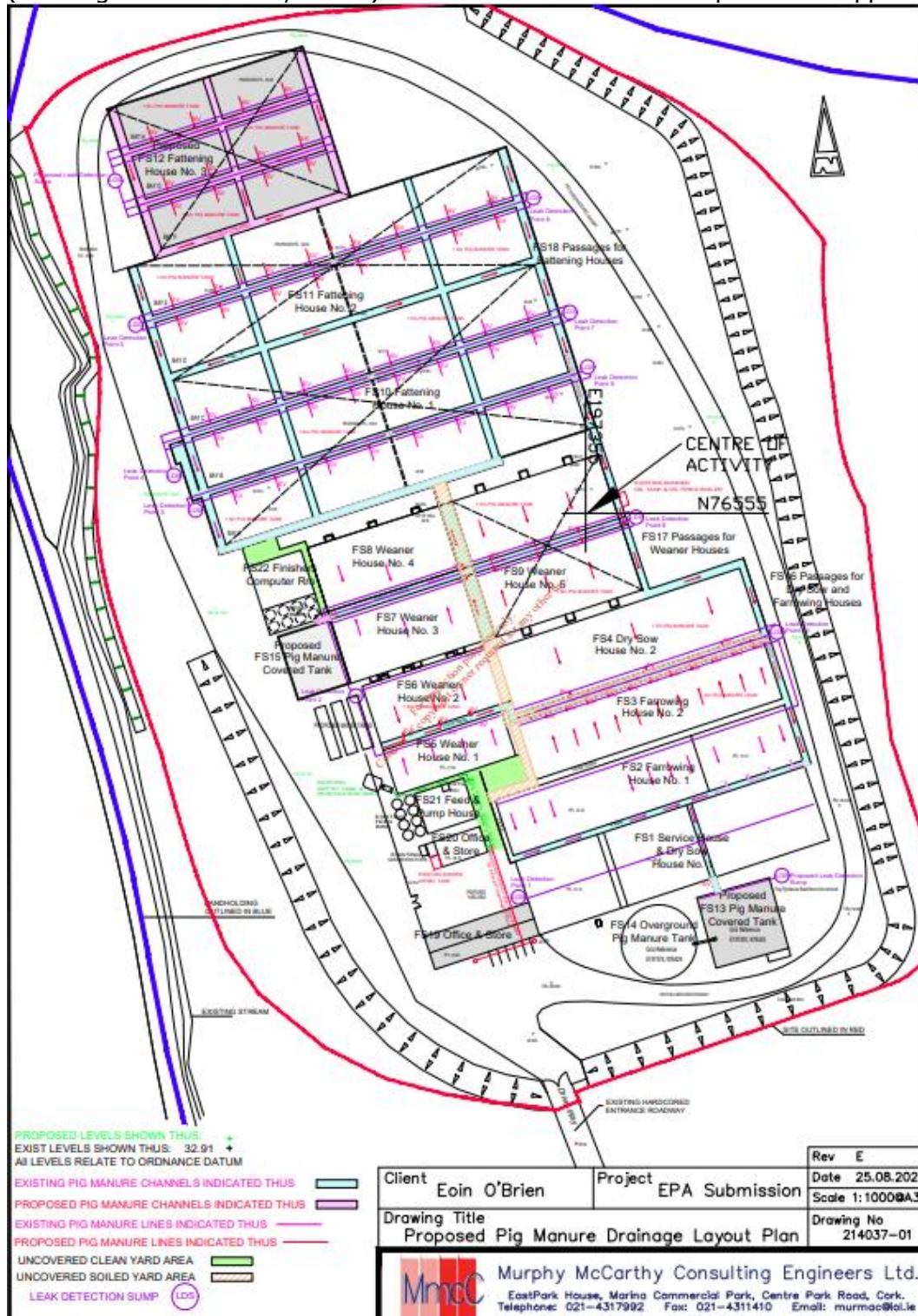
Appendix 1(a): Excerpt from the site layout plan titled "Farm Structures/Tanks" (Drawing No. 214037-05, Rev. C) received 01 October 2021 as part of the application.



Appendix 1(b): Excerpt from the site plan titled "Storm Drainage Layout Plan" (Drawing No. 214037-02, Rev. D) received 01 October 2021 as part of the application.



Appendix 1(c): Excerpt from the site plan titled "Pig Manure Drainage Layout Plan" (Drawing No. 214037-01, Rev. E) received 01 October 2021 as part of the application.



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
004023	Ballymacoda Bay SPA	<p>Birds</p> <p>A141 Grey Plover (<i>Pluvialis squatarola</i>) A169 Turnstone (<i>Arenaria interpres</i>) A144 Sanderling (<i>Calidris alba</i>) A142 Lapwing (<i>Vanellus vanellus</i>) A156 Black-tailed Godwit (<i>Limosa limosa</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A162 Redshank (<i>Tringa totanus</i>) A050 Wigeon (<i>Anas penelope</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A160 Curlew (<i>Numenius arquata</i>) A137 Ringed Plover (<i>Charadrius hiaticula</i>) A157 Bar-tailed Godwit (<i>Limosa lapponica</i>) A052 Teal (<i>Anas crecca</i>) A182 Common Gull (<i>Larus canus</i>) A183 Lesser Black-backed Gull (<i>Larus fuscus</i>) A149 Dunlin (<i>Calidris alpina</i>)</p> <p>Habitats</p> <p>Wetlands</p>	<p>NPWS (2015) Conservation Objectives: Ballymacoda Bay SPA 004023. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and the Gaeltacht.</p>	<p>The site is located 7.9 km to the south-east of the installation.</p> <p>I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest species for this European Site.</p> <p>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.</p> <p>The project site is not located within the vicinity of any known breeding site for species listed at this European site.</p> <p>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</p>
000077	Ballymacoda (Clonpriest & Pillmore) SAC	<p>Habitats</p> <p>1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand</p>	<p>NPWS (2015) Conservation Objectives: Ballymacoda (Clonpriest & Pillmore)</p>	<p>The site is located 8.1 km to the south-east of the installation.</p> <p>I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause</p>

Site Code	Site Name	Qualifying Interests <i>(* denotes a priority habitat)</i>	Conservation Objectives	Assessment
		1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	SAC 000077. <i>Version 2. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and the Gaeltacht.</i>	<p><i>an impact on the qualifying interest habitats for this European Site.</i></p> <p><i>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></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i></p>
004022	Ballycotton Bay SPA	<p>Birds</p> <p>A169 Turnstone (<i>Arenaria interpres</i>)</p> <p>A182 Common Gull (<i>Larus canus</i>)</p> <p>A183 Lesser Black-backed Gull (<i>Larus fuscus</i>)</p> <p>A156 Black-tailed Godwit (<i>Limosa limosa</i>)</p> <p>A140 Golden Plover (<i>Pluvialis apricaria</i>)</p> <p>A052 Teal (<i>Anas crecca</i>)</p> <p>A142 Lapwing (<i>Vanellus vanellus</i>)</p> <p>A160 Curlew (<i>Numenius arquata</i>)</p> <p>A141 Grey Plover (<i>Pluvialis squatarola</i>)</p> <p>A137 Ringed Plover (<i>Charadrius hiaticula</i>)</p> <p>A157 Bar-tailed Godwit (<i>Limosa lapponica</i>)</p> <p>Habitats</p> <p>Wetlands</p>	<p><i>NPWS (2014) Conservation Objectives: Ballycotton Bay SPA 004022. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and the Gaeltacht.</i></p>	<p><i>The site is located 9.5 km to the south of the installation.</i></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest species for this European Site.</i></p> <p><i>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></p> <p><i>The project site is not located within the vicinity of any known breeding site for species listed at this European site.</i></p>

Site Code	Site Name	Qualifying Interests <i>(* denotes a priority habitat)</i>	Conservation Objectives	Assessment
				<p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i></p>
001058	Great Island Channel SAC	<p>Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p>	<p><i>NPWS (2014) Conservation Objectives: Great Island Channel SAC 001058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and the Gaeltacht.</i></p>	<p><i>The site is located 9.9 km to the south-west of the installation.</i></p> <p><i>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></p> <p><i>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></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i></p>
004030	Cork Harbour SPA	<p>Birds A193 Common Tern (<i>Sterna hirundo</i>) A028 Grey Heron (<i>Ardea cinerea</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A157 Bar-tailed Godwit (<i>Limosa lapponica</i>) A056 Shoveler (<i>Anas clypeata</i>)</p>	<p><i>NPWS (2014) Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service, Department of</i></p>	<p><i>The site is located 10 km to the south-west of the installation.</i></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest species for this European Site.</i></p>

Site Code	Site Name	Qualifying Interests <i>(* denotes a priority habitat)</i>	Conservation Objectives	Assessment
		A156 Black-tailed Godwit (<i>Limosa limosa</i>) A052 Teal (<i>Anas crecca</i>) A183 Lesser Black-backed Gull (<i>Larus fuscus</i>) A054 Pintail (<i>Anas acuta</i>) A149 Dunlin (<i>Calidris alpina</i>) A017 Cormorant (<i>Phalacrocorax carbo</i>) A162 Redshank (<i>Tringa totanus</i>) A004 Little Grebe (<i>Tachybaptus ruficollis</i>) A050 Wigeon (<i>Anas penelope</i>) A160 Curlew (<i>Numenius arquata</i>) A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A069 Red-breasted Merganser (<i>Mergus serrator</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A142 Lapwing (<i>Vanellus vanellus</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A141 Grey Plover (<i>Pluvialis squatarola</i>) Habitats Wetlands	Arts, Heritage, Regional, Rural and the Gaeltacht.	<p><i>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></p> <p><i>The project site is not located within the vicinity of any known breeding site for species listed at this European site.</i></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i></p>
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 Callitriche-Batrachion vegetation	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.	<p><i>The site is located 10.7 km to the north of the installation.</i></p> <p><i>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></p> <p><i>I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on</i></p>

Site Code	Site Name	Qualifying Interests <i>(* denotes a priority habitat)</i>	Conservation Objectives	Assessment
		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 1421 Killarney Fern (<i>Trichomanes speciosum</i>) 1103 Twaite Shad (<i>Alosa fallax fallax</i>) 1099 River Lamprey (<i>Lampetra fluviatilis</i>) 1096 Brook Lamprey (<i>Lampetra planeri</i>) 1095 Sea Lamprey (<i>Petromyzon marinus</i>) 1106 Salmon (<i>Salmo salar</i>) 1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>) 1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) 1355 Otter (<i>Lutra lutra</i>)		<p><i>this European Site due to the lack of hydrological connectivity of the project site with the European site.</i></p> <p><i>The project site is not located within the vicinity of any known breeding site for species listed at this European site.</i></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i></p>
004028	Blackwater Estuary SPA	Birds A160 Curlew (<i>Numenius arquata</i>) A142 Lapwing (<i>Vanellus vanellus</i>) A156 Black-tailed Godwit (<i>Limosa limosa</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A157 Bar-tailed Godwit (<i>Limosa lapponica</i>) A149 Dunlin (<i>Calidris alpina</i>) A050 Wigeon (<i>Anas penelope</i>) A162 Redshank (<i>Tringa totanus</i>) Habitats Wetlands	NPWS (2012) Conservation Objectives: Blackwater Estuary SPA 004028. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	<p><i>The site is located 10.8 km to the north-east of the installation.</i></p> <p><i>I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest species for this European Site.</i></p> <p><i>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></p> <p><i>The project site is not located within the vicinity of any known breeding site for species listed at this European site.</i></p>

Site Code	Site Name	Qualifying Interests <i>(* denotes a priority habitat)</i>	Conservation Objectives	Assessment
				<i>I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges from the project site will not cause an impact on the conservation objectives for this European Site.</i>

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) & Birds Directive (79/409/EC)
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)
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