This Report has been cleared for submission to the Director by Senior Inspector Niamh O Donoghue   ***Signed:*** ***Date: 9th June 2025***

	OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE APPLICATION, LICENCE REGISTER NUMBER P0621-03

TO:	TOM RYIAN, DIRECTOR
FROM:	Philip Stack, Industrial Control and Environmental Regulation (ICER), Inspector
DATE:	05 June 2025
Applicant:	Carhue Piggeries Limited
CRO number:	439267
Location/address:	Cooligboy, Timoleague, Bandon, County Cork
Application date:	15 November 2023
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: Expanding activity for the rearing of pigs in an installation with proposed capacity for 1,750 sows and 9,290 production pigs.	
Additional information received:	Yes (31 May 2024, 22 April 2025, 02 May 2025)
No of submissions received:	Two

Environmental Impact Assessment required: Yes	Stage 2 Appropriate Assessment required: Yes
Environmental Impact Statement submitted (EIS): Yes (15 November 2023)	Natura Impact Statement (NIS) submitted: Yes (15 November 2023)
Site visit: 07 February 2024	Site notice check: 30 December 2023

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).

A license was first granted to Martin O'Donovan on 21 February 2003 for an installation at this location with a capacity of 832 sows and 4,200 finishers (ref. no. P0621-02). A reviewed licence was granted on 14 November 2003, to increase the stock capacity to 1,160 sows and 5,900 finishers (ref. no. P0621-02). This licence was transferred to Carhue Piggeries Limited in July 2022. Details of the current and proposed site capacity and infrastructure are provided in Table 1.1 below.

The review application proposes an increase in the number of pigs to be kept on-site, new buildings and associated infrastructure, a revised site boundary, and a new storm water discharge point. There will also be additional licence conditions to bring the activity into compliance with the Commission Implementing Decision (CID).

Table 1.1. Application details.

	Existing	*Proposed*
Pig categories		
Dry Sows	940	1,230
Farrowing sows	220	520
Maiden gilts	170	0
Boars	20	5
Weaners	4,600	7,000
Finishers	5,900	9,290
Total no. animals	11,850	18,045

For the purposes of the IED categorisation this equates to 1,750 sows and 9,290 production pigs.

The licensee is currently operating the installation at above the capacity permitted by their current licence. This has been the subject of enforcement activity by the EPA's Office of Environmental Enforcement (OEE).

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

2 Description of activity

The installation is located in a rural location, with most development near the installation consisting of dwelling houses and farmyards. The present enterprise employs thirteen people.

The main activities at this installation occur during normal working hours between 08:00 and 18:00. Stock inspections are carried out every day, including weekends and bank holidays and additional essential activities may be undertaken outside of core working hours. The installation currently operates in accordance with the requirements of the Department of Agriculture, Food and the Marine.

The pig production process on this farm is typical of many other Irish units. The installation will consist of 23 pig houses sub-divided to cater for the different pig categories on-site, along with slurry collection and storage tanks, and ancillary structures and equipment necessary for the accommodation, management and husbandry of the animals, and administration of the unit. The process involves the rearing of stock specifically bred from the on-site sows for meat production. Pigs will be reared at the installation until they reach the required finishing weight of approximately 90-110 kg. All houses will be fully cleaned out after each group of pigs is removed.

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

3 Planning Status

A number of planning applications have been made by the licensee for the area within the installation boundary since the last licence review granted to the installation. These are listed in Table 3.1 below.

Table 3.1: Planning permissions granted to the installation since the last licence review.

Ref. No.	Grant Date	Description
05/6575	13 December 2005	Construction of 2 pig houses, extension of two existing pig houses, and associated infrastructure.
09/896	15 June 2010	Construction of six new pig houses and associated infrastructure to accommodate an expanded integrated unit of 1,750 sows.
11/56	10 October 2011	Construction of a mill, dry sow house, internal roadways and associated site works.
14/493	13 October 2014	Extension to planning permission ref. no. 09/896.
24/4881	02 May 2025	Permission for the removal of condition No. 3 of permission ref. 09/896 (and extended under permission ref. 14/493) which restricted the use of the six buildings to two dry sow houses, two weaner houses, and two farrowing houses to now allow for the six number houses to be used to house any type of pigs.

Details of these planning applications and permissions have been provided in the application form.

The licensee has submitted the EIS associated with planning permission ref. no. 09/896. Having reviewed the planner's reports for previous planning permissions, it is considered that the EIS submitted with the licence application, along with the licence application and the further information received, contains adequate information to inform the Agency's assessment and that the EISs relating to previous planning permissions are not required for the Agency's assessment.

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

Schedule A of the RD limits the number of animals housed on-site to 1,750 sows and 9,290 production pigs, as per Table 1.1 of this report. This is the capacity that is specified in the application, in the EIS submitted in support of the application, and in the planning permissions granted for the installation.

4 Environmental Impact Assessment (EIA) Screening

In accordance with section 83(2A) of the EPA Act, the Agency must ensure that before a 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 likely to have a significant effect on the environment, and accordingly is carrying out an assessment for the purposes of EIA.

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

17. Installations for the intensive rearing of pigs with more than -

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

(c) 900 places for sows.

An EIS was submitted to the Agency as part of the application on 15 November 2023. 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 section 4.7 of the application form. Additional conditions have been incorporated into the RD to address BAT Conclusions and these are detailed throughout this report. Any relevant BAT-AELs have been specified in the emissions sections of this report.

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

6 Emissions

6.1 Emissions to Air

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

6.1.1 Channelled Emissions to Air

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

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	Direction from Site
150 m	South
250 m	Southwest
290-350 m (2)	Southeast
400-600 m (5)	East
460-490 m (2)	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 in relation to dust for this site by the Agency or by the licensee.

The licensee has stated that good housekeeping at the installation and keeping the concrete surface in a clean condition will minimise dust from the installation.

The RD specifies the following to prevent the generation and emission of dust:

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

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

6.1.4 Odour

The pig houses will be cleaned at the end of each batch. Houses will be stocked at optimum levels and adequately ventilated, to minimise odour emissions. Slurry is frequently removed from below all pig houses to a nearby off-site anaerobic digester. The licensee has proposed to reduce the crude protein concentration of pig feed used on-site, which has been demonstrated to reduce the emission of odour by approximately 10% for every 1% reduction of crude protein in the diet, with a maximum reduction of 30%. A slurry cooling system has also been installed in the slurry tanks of the new buildings (buildings 20, 21, 22, and 23) onsite.

Three complaints relating to odour nuisance have been received by the Agency: one each in 2014, 2022, and 2024.

The odour impact potential of the installation has been assessed in accordance with the EPA's *Instruction note for the assessment of odour emissions from Intensive Agriculture pig installations* (2022). This publication states an odour emissions limit of 5.0 OUE/m³ for existing pig-production units licensed by the EPA between 2001 and 15 February 2017, which will be applicable for this installation.

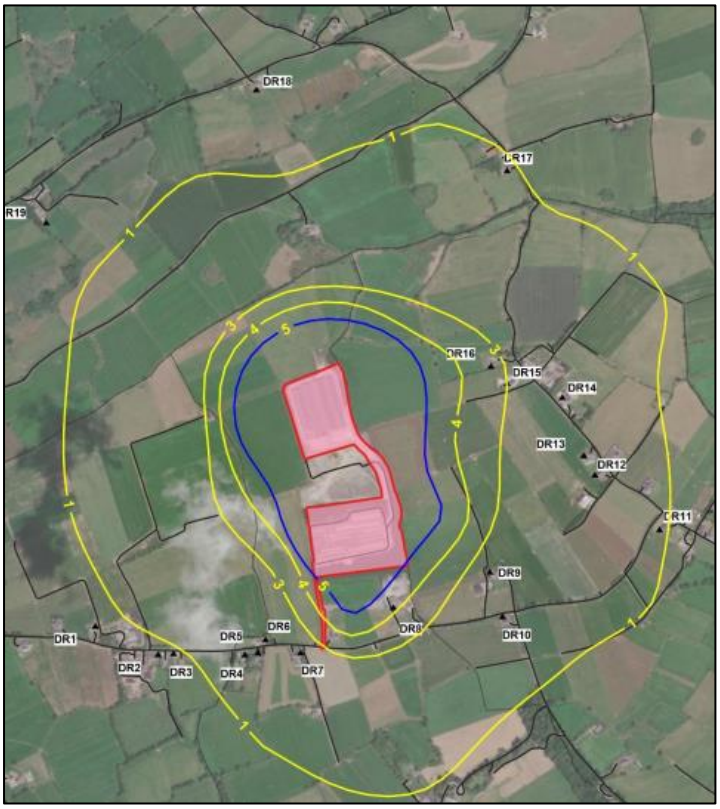


Figure 6-1: Highest predicted 98th percentile 1-hour average ground-level concentrations of odour from the installation across five modelled years.

The maximum predicted ground level concentration of odour at the closest sensitive receptor to the installation was 4.3 OU_E/m^3 (C98, 1 hr) for the worse case meteorological year, which is less than the limit for existing intensive agricultural installations of 5 OU_E/m^3. The maximum predicted ground level concentration (C98, 1 hr) of odour at other nearby sensitive receptors ranges between 0.5 and 3.2 OU_E/ m^3 (see Figure 6.1). Therefore, odour is not expected to be a significant issue.

The RD specifies the following odour control conditions:

- That odour from the activities shall not result in an impairment of, or an interference with amenities or the environment beyond the installation boundary (Condition 5).
- To use a diet formulation and nutritional strategy to reduce the total nitrogen and phosphorus excreted, as per BAT 3 and BAT 4 (Condition 6). The crude protein content of the feed is limited to weighted averages of 14.5% for sows, 17.5% for weaners, and 15% for production pigs (Condition 6 and Schedule B).
- To use a combination of the techniques listed in BAT 13 to prevent/reduce odour emissions/impact from the site (Condition 6).
- To install a slurry cooling system and heat exchanger in buildings 20, 21, 22, and 23 to recover heat for use on-site, as per BAT 30 (Condition 6, and Schedule C).
- That slurry is frequently removed from all pig houses on-site, such that slurry depths in the tanks do not exceed 800 mm (Condition 6).
- That the licensee carries out an odour survey of the site operations weekly, as required by the Agency and in response to any complaint received (Condition 6).
- That the licensee maintains and implements an odour management plan and incorporates it into the Environmental Management System (EMS) for the installation, as per BAT 12 (Condition 6).
- Should odour become an issue on-site, the RD includes a condition whereby the licensee can be required to reduce stock or install abatement to reduce odour emissions (Condition 6).
- That carcasses stored on-site will be stored in covered leak-proof containers and transported off-site in covered, leak proof containers at least fortnightly (Condition 8).

6.1.5 Ammonia

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

This installation will emit approximately 18 tonnes of ammonia per annum.

Ammonia emissions from this activity may have the potential to impact sensitive receptors in the vicinity of the installation. The Agency screened the impact of ammonia emissions and nitrogen deposition at European sites using a screening model (SCAIL Agriculture) 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 screening was based on standard animal housing and did not include the use of low emission housing on-site.

The licensee undertook an ammonia impact assessment as per the EPA's Licence Application Instruction Note 1 (IN1) *Assessing the Impact of Ammonia Emissions and Nitrogen Deposition from Intensive Agriculture Installations on European Sites* (Version 3, September 2024). The licensee submitted a full site-specific model (not a screen model), as part of the completion of a Natura Impact Statement (NIS), using more refined details in accordance with the

[1] https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/IIR_Ireland_2024v1.pdf
[2] https://www.gov.ie/en/publication/9a6c6-code-of-good-agricultural-practice-for-reducing-ammonia-emissions-from-agriculture/

requirements of AG4. The model took into account in-combination effects of the installation's ammonia emission and those of other licensed or unlicensed pig and poultry installations in the locality of the Natura 2000 sites, as per the EPA's guidance document. The model indicated that the Process Contribution (PC) of the installation to the critical level for ammonia concentration and the critical load for nitrogen deposition was below the limits set in the guidance referred to above.

This licence review is for the re-development of the site. The upgrade of the site will lead to improved environmental standards and efficiencies and a reduction in ammonia emissions.

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.

To comply with BAT 3 (nutritional strategy to reduce nitrogen excretion), the licensee has stated that they will implement the following techniques.

- They will reduce the crude protein content of the animal feed. According to the BREF document for this sectoral CID, for each 1% decrease in the protein content of animal feed, ammonia emissions can be decreased by 5-15%. The crude protein levels of the feed at the installation will be limited to weighted averages of 14.5% for sows, 17.5% for weaners, and 15% for production pigs, approximately 3% lower than standard protein levels in pig feed (Condition 6 and Schedule C).
- Multiphase feed will also be used by the licensee. The BREF document details various reductions when compared to single phase feeding for both sows (17-22%) and weaners (9-18%) dependent on the number of phases, feed types and growth stage of the animals. The licensee has stated that they will use multiphase feeding with seven different diets for the different animal types on-site (Condition 6).
- A 39% reduction in emissions (ammonia and odour) from has been included in the calculations outlined below.

In order to meet BAT 16 (slurry stores) requirements, the licensee will minimise the stirring of slurry and put a rigid or flexible cover in place on all external slurry stores.

In order to meet BAT 30 (reduction of ammonia emissions to air from each pig house) requirements, the licensee will use the following techniques in the animal houses:

- The utilisation of slurry cooling in the under-house slurry tanks with heat reuse elsewhere on the site in the four new pig houses (houses 20, 21, 22, and 23). Slurry cooling systems have demonstrated an ability to substantially reduce ammonia (and odour) emissions from slurry in the pits under pig houses when cooled to 15℃ or lower. According to the BREF document for this sectoral CID, ammonia emissions from the applicable animal houses can be decreased by between 45% and 75%.
- The heat recovery system will be used to supply the heating requirements of the installation.
- The frequent removal of slurry from all pig houses, and transfer to an off-site anaerobic digester. Slurry removal shall occur sufficiently frequently enough such that slurry depth does not exceed 800 mm.

All of the above techniques have been incorporated into the ammonia modelling provided by the licensee.

In the absence of any ammonia reducing techniques, this installation would emit approximately 31 tonnes of ammonia per annum. By incorporating the ammonia reducing techniques outlined above, i.e. nutritional and slurry management techniques, the ammonia emissions from the installation will be approximately 18 tonnes per annum.

The nutritional and slurry management standards and emission factors are specified and required in Conditions 3 and 6, and Schedule B of 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 (Condition 6).
- The RD limits the crude protein content of the animal feed to maximum values (as weighted averages) of 14.5% for sows, 17.5% for weaners, and 15% for production pigs (Condition 6).
- To use a combination of the applicable techniques listed in BAT 16 to reduce ammonia emissions to air from slurry stores (Condition 6). The techniques specified are minimisation of the stirring of slurry and having a rigid or flexible cover in place.
- To use the following BAT 30 techniques to reduce ammonia emissions to air from each house for pigs:
    - frequent slurry removal (in case of a fully or partly slatted floor); and
    - installation of a slurry cooling system and heat exchanger in the new animal houses to recover heat for use on-site, as listed in BAT 30(b) (Condition 6).
- To complete a test programme for the housing system to establish the criteria for operation of the slurry cooling system (Condition 6).
- To complete an estimation of ammonia emissions from the installation in accordance with BAT 25 (Schedule B).

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

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

6.2 Emissions to Water and Ground

6.2.1 Emissions to Surface Waters

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

6.2.2 Emissions to ground/groundwater

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

6.2.3 Other emissions to ground/groundwater

There is an existing septic tank and percolation area. The RD 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 Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. ≤ 10)* issued in 2009. *Code of Practice Domestic Waste Water Treatment Systems (Population Equivalent ≤ 10)* published by the EPA.

There are no other emissions to ground or groundwater.

6.3 Storm Water Discharges

Storm water arises on-site from rainwater collected from clean yards and from the roofs of buildings. All clean storm water is diverted away from soiled areas of the site by a storm water collection system around each house and is diverted by gravity for discharge via three discharge points, SW-1 and SW-2 into a field drain on the southwest boundary of the site and SW-3 into a field drain on the northeast boundary of the site. All three of the discharge points will have a silt trap installed prior to discharge.

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

Table 6.2: Storm water discharge point details

Discharge Reference	Monitored parameters (monitoring frequency)	Abatement	Drainage areas	Discharging to
SW-1	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Field drain >> Lettercollum stream >> Timoleague River
SW-2	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Field drain >> Lettercollum stream >> Timoleague River
SW-3	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Field drain >> Ummera stream >> Timoleague River

The drains SW-1 and SW-2 flow to the Lettercollum Stream, which joins the Timoleague River approximately 680 m downstream of the installation. The Timoleague River currently has a WFD status of Good (waterbody code: IE_SW_20E050970). The drain SW-3 flows into the Ummera Stream, (waterbody code: IE_SW_20E050970) which joins the Argideen Estuary approximately 490 m downstream of the installation. The Argideen Estuary has a WFD status of Moderate (waterbody code: IE_SW_090_0200). There are no identified drinking water abstraction points on the Lettercollum and Ummera Streams.

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

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

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

- That all uncontaminated storm water be diverted to the storm water drainage system (Condition 6).
- That an up-to-date site drainage map be maintained on-site, and that the storm water drainage system be inspected weekly and maintained properly at all times (Condition 6).
- That a storm water/rainwater collection and drainage system for all pig houses on-site be maintained (Condition 6).
- That an inspection chamber at the outlet of the storm water drainage system be maintained for the existing discharge points and prior to commencement of discharge for any new discharge points (Condition 3).
- That a silt trap be provided and maintained on all existing storm water discharge points within three months of the date of grant of the licence, and that any new storm water discharge points shall be fitted with silt traps in advance of discharge (Condition 6).

- That the storm water discharge is visually inspected weekly and monitored for Chemical Oxygen Demand (COD) or Biological Oxygen Demand (BOD) etc. as required by the Agency, in accordance with Schedule B.5 Storm Water Discharge Monitoring.

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

6.4 Noise

The main sources of noise at the installation include the operation of equipment, ventilation systems, the back-up generator, vehicle deliveries/collections, and animals. As mentioned earlier, the nearest third-party residential dwelling is approximately 150 m away.

There have been two complaints regarding noise at the installation, one in 2015 and another in 2022, relating to noise believed to be from ventilation fans and from late-night movements of vehicles to and from the installation respectively. No noise complaints were received by the HSE, and no submissions have been received outlining that noise is a cause for concern from the installation.

Noise emissions are and will be primarily 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 daytime 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	93
General Waste	4.8
Fluorescent 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 and will be stored temporarily on-site in covered skips, before being transported to an appropriately licensed installation.

A rodent and pest 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 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/Pig Slurry

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/Pig Slurry

	Organic fertiliser/Pig Slurry
Quantity produced per annum.	23,061 m^3
Number of storage tanks/stores on-site	27
Total storage capacity on-site (ex. freeboard)	28,274 m^3
No. weeks storage on-site	63 weeks
End use off-site	Anaerobic Digester

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 washed down, with the resulting wash water being washed through the slatted floors into the tanks below, adding to the total volume of organic fertiliser produced. After washing, the houses are allowed to dry and then disinfectant applied. The wash water may contain insignificant quantities of disinfectant from the previous washing cycle.

While the licensee has stated that pig slurry will be sent for anaerobic digestion the RD contains conditions which allow for its possible use as organic fertiliser for landspreading. 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 Regulations[3]. The licensee is required under the licence to submit online to DAFM details in relation to the quantity of organic fertiliser (pig slurry) exported (Record 3 form) off-site. DAFM may use the record of export of organic fertiliser to identify the recipient of the organic fertiliser and the quantity received.

The Animal By-product (ABP) Regulations[4] impose legal requirements on the licensee, the 'commercial haulier' and the user of the organic fertiliser. These requirements include use of a 'commercial document' to record details required under the regulations. The licensee is required to receive a completed copy of the 'commercial document' from the transporter confirming the final destination.

There is no landspreading of organic fertiliser conducted and/or permitted within the installation boundary, and consequently there will be no additional ammonia emissions from landspreading activities within the installation boundary. It is important to note that the IE licence relates to the site of the activity for which the licence application is made and does not extend to the lands on which organic fertiliser may be used as fertiliser. The Nitrates

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

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 pig slurry produced by the animals is contained temporarily in the slatted tanks under each animal house. Any 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. The slurry is removed by the licensee from the slatted tanks under each pig house directly to tanker and immediately removed off-site with approximately 90-100% transported to a nearby AD plant (Timoleague Agri Gen Limited P0986-01).

The Nitrates Regulations (Article 10(1)) require that a minimum of 26-weeks' storage capacity for organic fertiliser is provided. The licensee has potential storage for 63 weeks of slurry storage.

The quantity of nitrogen and phosphorus generated by the activity at the proposed licence capacity of 1,750 sows in an integrated unit is approximately 152,250 kg N and 29,750 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).
- That slurry only be stored under the pig houses or designated slurry stores (Condition 8).
- That all storage tanks are integrity assessed before utilisation for proposed tanks, and at least once every three years thereafter (Condition 6).
- That a combination of the techniques listed in BAT 6 be used to reduce the generation of wash water on-site (Condition 6).
- That one or a combination of the techniques listed in BAT 7 be used to reduce the emissions to water from wash water on-site (Condition 6).
- That a freeboard of at least 200 mm from the top of covered organic fertiliser storage tanks and 300 mm from the top of uncovered organic fertiliser storage tanks is maintained, as a minimum, at all times and that this is clearly indicated in the tank (Condition 6).

9 Energy Efficiency and Resource Use

The operation of the installation involves the consumption of fuel, electricity and resources. The proposed quantities to be used of pigs of 1,750 sows in an integrated unit are given below.

Table 9.1: Estimated resource usage

Resource	Quantity per annum
Electricity	881 MWh
Water (groundwater) Water Abstraction registration required:	18,000 m^3 Yes
Feed	6,372 t
Gas Oil	66 m^3
Diesel	Back-up generator

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 primary source of water for the activity is four on-site and four off-site wells. The RD requires the licensee to carry out monitoring of the on-site wells annually. The licensee has provided monitoring results for the on-site wells which shows no evidence of contamination from the activities at the site.

The installation is located on the Skibbereen-Clonakilty groundwater body (IE_SW_G_085), a moderately productive bedrock in local zones, which has a WFD status of 'good'.

In accordance with the European Union (Water Policy) (Abstractions Registration) Regulations 2018 (S.I. No. 261 of 2018) those who abstract 25 m^3 of water or more per day are required to register their water abstraction with the EPA. The licensee is required to register their abstraction.

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 in all site operations, undertake an energy audit update, repeated at intervals as required by the Agency with the recommendations of the audit being incorporated into the Schedule of Environmental Objectives and Targets as outlined in Condition 2 (Condition 7).

10 Prevention of Accidents

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

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

Potential accidents and measures to prevent	
Potential for an accident or hazardous/emergency situation to arise from activities at the installation	• Surface water and/or ground/groundwater contamination during pig removal and washing. • Surface water and/or ground/groundwater contamination by spillage of organic fertiliser/pig slurry, 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.
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the installation	• The provision and maintenance of adequate organic fertiliser/slurry storage facilities. • The storage of potentially polluting liquids in bunded areas. • The concreting of yards around houses. • The separation of wash water and clean storm water, with wash water diverted directly to the organic fertiliser/slurry storage tanks under the animal houses.
Additional measures provided for in the RD	• Integrity assessment and maintenance of the organic fertiliser/slurry storage infrastructure as required (Condition 6). • The regular visual examination and inspection of the storm water discharge point(s) and storm water drainage system (Condition 6). • No storage of organic fertiliser/slurry on-site, other than what is under the animal houses during the pig rearing cycle at the installation (Condition 8). • The provision of more than 26-weeks organic fertiliser/slurry 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 in attachment 9.1. Condition 10 of the RD requires the proper closure of the activity with the aim of protecting the environment.

Baseline Report

Where an activity involves the use, production or release of Relevant Hazardous Substances, and having regard to the possibility of soil and groundwater contamination at the site of the installation, the IED requires operators to prepare a baseline report. A baseline screening assessment was undertaken by the licensee, in accordance with Stages 1 to 3 of European Commission Guidance[5].

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 2003, P0621-02. 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 EPA Act, or under any other relevant environmental legislation. The former licensee for this installation, Mr. Martin O'Donovan, was successfully prosecuted on 04 January 2024 by the Agency for carrying on the licensed activity at a capacity above that permitted by the existing licence. Since this date, the licence was transferred to Carhue Piggeries Limited in July 2022 and Martin O'Donovan is not a named director of this company.

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

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

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 application.

13 Submissions

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

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

Table 13.1: Submissions summary

1.	**Name & Position:** Mr. Michael McPartland, Senior Fisheries Environmental Officer	**Organisation:** Inland Fisheries Ireland	**Date received:** 22 December 2023
	Issues raised: *The submission notes that the licensee is seeking a licence for intensification of an existing facility, which is in close proximity to the Argideen Estuary, which is an at-risk waterbody. It states that the granting of a licence for this expansion cannot be seen as sustainable development or in keeping with the requirements of the Water Framework Directive.* **Agency response:** The organic fertiliser/slurry section of this report contains further information relating to the management of pig slurry. Most pig slurry will be transferred to a nearby anaerobic digestion (AD) plant, from which digestate will be distributed to customer farmers in accordance with their agricultural requirements. Landspreading of organic fertiliser occurs outside of the licensed boundary and is/will be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations. This is enforced by the DAFM and the Local Authorities.		
2.	**Name & Position:** Ms. Eve Smith, Environmental Health Officer	**Organisation:** Environmental Health Service, Health Service Executive (HSE) South	**Date received:** 18 January 2024
	Issues raised: *The submission makes a number of observations in relation to the licence application. The issues raised include noise, odour, surface/storm water, manure (pig slurry), waste, pest control, and climate/energy usage. The HSE also confirmed in their submission that they have not received any complaints relating to the installation to date. The submission refers only to those areas within the remit of the HSE.* *Specific recommendations and observations highlighted by the HSE include:* • *That the noise limits that the licensee has said they will comply with and notes that they have not received any complaints in relation to noise.* • *That the Odour Impact Assessment (OIA) submitted by the license found that odour emissions from the farm are unlikely to adversely impact nearby residential locations. They further make a number of recommendations relating to the management of pig slurry.* • *That periodic monitoring takes place of storm water and at groundwater wells on-site and in areas used for landspreading of manure.* • *That there is proper segregation of waste into different waste streams for appropriate handling and management by appropriately authorised waste contractors.* • *Animal tissues or carcasses should be stored and transported in sealed leakproof containers.*		

	• *That an Integrated Vector Management approach to pest/vector control be implemented, through actions such as good design and construction of infrastructure such as drains, good waste management practices, such as the management of animal tissues and carcasses, plus the application of measures to control vectors in all stages of their life cycle.* • *That rainwater harvesting takes place and that the licensee investigates use of renewable energy sources.* • *It is recommended that a formal complaints procedure should be outlined to resolve any possible issues or community concern in relation to traffic, dust, water, noise, odour or nuisance complaints.* **Agency response:** The main issues raised in the submission are noted and addressed in the relevant sections of the Inspector's Report. • The 'Noise' section of this report contains further information in relation to noise. The RD includes conditions in relation to noise from the activity. • The 'Odour' section of this report contains further information in relation to odour. The RD includes condition in relation to odour from the activity. • The 'Energy Efficiency and Resource Use' section of this report addresses water sources for the activity. Annual monitoring is required for on-site wells storm water discharge points. • Landspreading of organic fertiliser occurs outside of the licensed boundary and is/will be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations. This is enforced by the DAFM and the Local Authorities. • The 'Waste' section of this report contains further information in relation to waste generation and management at the installation, including pig tissue waste (carcasses). • Pest control is addressed in the 'Waste Generation' Section of this report.

14 Consultations

14.1 Cross Office Consultation

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

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

The last site visit by OEE on 20 February 2025 raised the continued operation of the piggery outside the site boundary and above the numbers specified in the licence. This has been an ongoing non-compliance with the licence since being first observed on a site visit on 09 June 2021. Observations were also raised in relation to spilled animal feed and waste management.

14.2 Transboundary Consultations

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

15 Appropriate Assessment

Appendix 2 lists the European sites assessed, their associated qualifying interests and conservation objectives along with the assessment of the effects of the activities on the European sites.

A screening for Appropriate Assessment (AA) was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European

Sites at Courtmacsherry Estuary SAC (001230), Courtmacsherry Bay SPA (004219), Clonakilty Bay SAC (000091), Clonakilty Bay SPA (004081), Seven Heads SPA (004191), Galley Head to Duneen Point SPA (004190), Kilkeran Lake and Castlefreke Dunes SAC (001061), and Old Head of Kinsale SPA (004021).

The activities are 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 activities, 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 activities was required. This determination has been made in light of the following reasons:

- Air emissions of ammonia (and associated nitrogen deposition) from the installation have the potential for effects on qualifying interest habitats and species in the European Sites listed above due to their proximity to the installation and the qualifying interest's particular sensitivity to ammonia. The closest European sites, Courtmacsherry Estuary SAC and Courtmacsherry Bay SPA, are approximately 1.3 km from the installation boundary. Regard has been had to the EPA's Licence Application Guidance (*Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 Sites from Intensive Agriculture Installations*, Version 2, March 2023) and the online screening tool SCAIL Agriculture (www.scail.ceh.ac.uk) as part of this Appropriate Assessment Screening Determination.
- It is proposed that storm water run-off from the roof and paved areas will be directed into land drains. There are potential surface water pathways connecting the installation to European sites, Courtmacsherry Estuary SAC and Courtmacsherry Bay SPA approximately 2 km downstream of the installation, therefore, potential impact on sensitive receptors cannot be ruled out at European sites.
- Taking all of the foregoing into account it is considered that significant effects on European Sites and their qualifying interests due to emissions to air from the installation cannot be ruled out at the screening stage and based on the precautionary principle this determination is that a Stage 2 Appropriate Assessment is required.

A Natura Impact Statement was received by the Agency on 15 November 2023 and updated on 31 May 2024.

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Courtmacsherry Estuary SAC (001230), Courtmacsherry Bay SPA (004219), Clonakilty Bay SAC (000091), Clonakilty Bay SPA (004081), Seven Heads SPA (004191), Galley Head to Duneen Point SPA (004190), Kilkeran Lake and Castlefreke Dunes SAC (001061), and Old Head of Kinsale SPA (004021), 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 1.3 km away.
- It is proposed that storm water run-off from the roof and paved areas will be directed into local watercourses. There will be no other direct discharge to surface waters or groundwater within the installation boundary.
- The storm water collection system includes a silt trap on all storm water lines prior to discharge of the storm water from the site.
- The risk of surface water or groundwater contamination because of accidental emissions during washing activities, or from spillage from the pig slurry tanks, is minimal, given the surface water pathway distance between the activity and a European site (approximately 2 km).
- Waste generated on-site will be handled and stored in a manner which will ensure there is no risk to European sites and will only be sent to appropriately authorised facilities.
- It is proposed that slurry will be exported to a nearby anaerobic digester, with the resulting digestate applied to farmlands in accordance with the Nitrates Regulations. The licence, if granted, relates to the

site of the activity for which the licence application is made, i.e., the rearing of pigs within the installation boundary, and does not extend to the off-site anaerobic digester or 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 1.3 km away from the installation boundary (Courtmacsherry Estuary SAC and Courtmacsherry 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 agricultural installations within a 5 km radius of the installation. There are two other licensed installations within a 5 km radius of the installation, a slaughterhouse and an anaerobic digester. 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. This includes a commitment use a low protein feed and multiphase diets, frequent slurry removal, and a slurry cooling system in the new buildings.
- Air emissions were modelled and the modelling concluded that process emissions from the proposed pig numbers at the installation will not contribute significantly to ammonia levels and nitrogen deposition? at the European Sites.
- Regard has been had to the EPA's Licence Application Instruction Note 1 (IN1) *Assessing the Impact of Ammonia Emissions and Nitrogen Deposition from Intensive Agriculture Installations on European Sites* (Version 3, September 2024) in addition to the online screening tool SCAIL Agriculture as part of this Appropriate Assessment.

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 Courtmacsherry Estuary SAC (001230), Courtmacsherry Bay SPA (004219), Clonakilty Bay SAC (000091), Clonakilty Bay SPA (004081), Seven Heads SPA (004191), Galley Head to Duneen Point SPA (004190), Kilkeran Lake and Castlefreke Dunes SAC (001061), and Old Head of Kinsale SPA (004021).

There were no submissions on this application concerning Appropriate Assessment.

16 Environmental Impact Assessment

16.1 EIA Introduction

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 EIS submitted with this application was the same EIS submitted to the Planning Authority as part of planning permission 09/896 and was submitted to the planning authority prior to 15 May 2017. Therefore, this assessment is being undertaken in accordance with the requirements of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

As part of this environmental impact assessment, I have carried out an examination, analysis and evaluation of all the information provided by the licensee (including the EIS), the existing licence, Register Number: P0621-02, information received through consultation, the documents associated with the assessments carried out by Cork County Council and its reasoned conclusion, and the issues that interact with the matters that were considered by that authority and which relate to the activity, written submissions, as well as considering any supplementary information where appropriate. All of the documentation received was examined and I consider that the EIS

complies with the provisions of Article 5 of the 2011 EIA Directive when considered in conjunction with the additional material submitted with the application.

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

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

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

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

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

16.2 Consultation with Planning Authorities in relation to EIA

Consultation was carried out between Cork County Council and the Agency under the relevant section of the EPA Act. Cork County Council confirmed that planning permission ref. 09/896 is the relevant planning permission for the activity and that an EIS was received by them as part of the planning application assessment.

Cork County Council highlighted that Condition 3 of planning permission ref. 09/896 required the buildings to be used as described in the public notices. They note that the layout detailed in the 2022 NIS submitted in support of the IE application proposed a different class of pigs in the new buildings. This inconsistency has since been rectified by planning permission ref. no. 24/4881.

They did not provide any further observations to the Agency on the licence application and EIS.

16.3 Consultation with other competent authorities

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

16.4 Alternatives

The matter of alternatives is addressed in Chapter 4 of the EIS. It examines several alternative layouts. Alternative sites, layout and design, size, processes, and management of by-products were considered. The process chosen offers the licensee the best fit between proposed and existing enterprises which are situated adjacent to each other. In this regard I consider that the matter of the examination of alternatives has been satisfactorily addressed.

16.5 Likely Significant Direct and Indirect Effects

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

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

16.5.1 Human Beings

Identification, Description and Assessment of Effects

Human Beings are mainly addressed in Chapter 6 of the EIS. The potential direct and indirect effects on human beings are associated with emissions to air, odour, noise emissions, emissions to water, waste generation, and accidental emissions. Should emissions cause an exceedance of environmental quality standards, this could have implications for human 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.

16.5.2 Fauna and Flora

Identification, Description and Assessment of Effects

Fauna and flora are mainly addressed in Chapter 6.31 of the EIS. The EIS describes the habitats and species at and in the vicinity of the installation. It is proposed that a relatively small area of the surrounding agricultural grassland will be developed. This is located adjacent to the existing piggery.

There are eight Natura 2000 designated sites within 20 km of the application site, the closest being just over 1 km away from the installation. The site of the application is typical of the intensive agricultural nature of the surrounding land.

The licensee also submitted a Natura Impact Statement (Refer to the Appropriate Assessment section of this report).

The potential direct and indirect effects on fauna and flora are related to effects on aquatic fauna and flora 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 enforced by DAFM and the Local Authorities. In addition, the Government's Food Vision 2030 was published in August 2021 and sets out four high level mission statements for the Agri-Food sector. This document proposes more targeted agri-environmental schemes under the CAP Strategic Plan to protect Ireland's habitats and species from emissions from the agricultural sector. This Agri-Food Strategy (AFS) also included an Appropriate Assessment (AA) which concluded that "the adoption of the AFS would not have significant adverse effects on the integrity of any Natura 2000 sites with the inclusion of the mitigation recommendations."

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

Mitigation and Monitoring

Mitigation measures and monitoring in relation to biodiversity 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.

16.5.3 Soil

Identification, Description and Assessment of Effects

Soil is addressed in Chapter 6.1.1 of the EIS. The expansion to the installation is located on what was a greenfield site in a fertile productive agricultural area. This area has a relatively flat to gently undulating topography similar to a significant part of County Cork and surrounding areas. Land use in the development area was improved agricultural grassland. Any potential contamination issues are dealt with in the 'baseline report' section of this report.

The potential direct and indirect effects on land and soil are associated with emissions to air, emissions to water, and accidental emissions. Should emissions cause an exceedance of environmental quality standards, this could have implications for land and 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,
- 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 enforced 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 land and soil are detailed in the following sections of this report:

- Emissions to Air,
- Emissions to Water and Ground,
- 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.

16.5.4 Water (including Waste Water)

Identification, Description and Assessment of Effects

Water is mainly addressed in Chapter 6.1.2 of the EIS. The site is within the Skibereen-Clonakilty groundwater body (Ref: IE_SW_G_085) which has a Water Framework Status of 'good' and a vulnerability of 'extreme'.

The site lies within the Bandon-Ilen catchment area and East Cruary sub-catchment. Storm water from the roof and yard area will discharge to field drains towards the Lettercollum and Ummera Streams. The Lettercollum Stream is approximately 676 m south west of the site and the Ummera Stream is approximately 493 m north east of the site.

There are no emissions to water or ground from the site, apart from an on-site septic tank and percolation area. The potential direct and indirect effects on water relate to storm water discharges. 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 two other significant industrial developments; Timoleague Agri Gen Limited (P0986) and Staunton Foods Limited (P0947). 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/developments in the area. Most pig slurry will be transferred to a nearby anaerobic digestion (AD) plant, from which digestate will be distributed to customer farmers in accordance with their agricultural requirements. Landspreading of organic fertiliser, which may occur will be outside of the licensed boundary, could cause pollution of surface waters or groundwater. To prevent this, the application of fertilisers to land is controlled by the Nitrates Regulations. These give legal effect in Ireland to the Nitrates Directive and to our Nitrates Action Programme (NAP) and controls the management and application of livestock manure and other fertilisers. The NAP is required to be reviewed every four years. In 2022, the Department of Housing, Local Government and Heritage undertook an Appropriate Assessment of the current NAP (5th NAP 2022-2025), which included a Natura Impact Statement (February 2022) for Irelands NAP and concluded that the NAP would not result in adverse effects on European site integrity either alone or in combination with other plans and programmes.

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

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

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

Mitigation and Monitoring

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

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

Conclusions

I have examined all the information on water (including Storm Water, Emissions to Water and Groundwater) provided by the 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.

16.5.5 Noise

Identification, Description and Assessment of Effects

Noise is mainly addressed in Chapter 5.3.4 of the EIS. The potential direct and indirect effects of noise associated with the operation of the activity is the potential to cause nuisance for those living near the activity or to affect noise sensitive species near the site. The effects have been assessed in the 'noise' section of this report.

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

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

Mitigation and Monitoring

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

Conclusions

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

16.5.6 Air

Identification, Description and Assessment of Effects

Air is mainly addressed in Chapter 5.3.3 and 6.1.4 of the EIS. The potential direct and indirect effects on air are associated with emissions to air of ammonia, dust and odour from the pig housing, and dust from the installation yard. Should emissions cause an exceedance of air quality standards or critical levels/loads, this could have implications for air quality, human health and biodiversity within and beyond the site boundary. General site dust and odour emissions have the potential to impact 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 EPA licensed activities within 5 km of the installation.

A 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 licence, as a result of the ammonia emissions from the installation and those generated by other activities/developments in the area.

As stated previously, the Agency has issued a guidance document to assist applicants in undertaking an assessment of the impacts of ammonia and nitrogen, including cumulative assessments, titled EPA's Licence Application Instruction Note 1 (IN1) *Assessing the Impact of Ammonia Emissions and Nitrogen Deposition from Intensive Agriculture Installations on European Sites* (Version 3, September 2024). An earlier version of this guidance, *Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 Sites from Intensive Agriculture Installations* (Version 2, March 2023), was in use at the time that the AA Screening was conducted, nonetheless the application is in compliance with the current, updated version.

Modelling of odour emissions was undertaken by the licensee and concluded that there should not be any impacts on any odour-sensitive locations nearby. In addition, site specific modelling of the ammonia emissions from the installation was undertaken, which took into account the background levels of ammonia, and it is considered that there is not likely to be a significant cumulative effect on sensitive receptors, with the controls in place and controls recommended in the RD, as a result of the ammonia emissions from the installation and those generated by other activities/developments in the area.

According to '*Ireland's Informative Inventory Report 2024*' (EPA 2024), which contains the most recent data, ammonia emissions in 2022 from the pig sector were 6.1 kt (or 4.8% of Ireland's National emissions). This installation will emit 18 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 mentioned earlier, the AFS sets out four high level mission statements for the sector one of which is to become a 'Climate smart, environmentally sustainable Agri-food sector'. Another of its seven goals is to develop a climate neutral food system by 2050 and improve air quality. As stated, its associated AA concluded "the adoption of the AFS would not have significant adverse effects on the integrity of any Natura 2000 sites with the inclusion of the mitigation recommendations."

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

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

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

Mitigation and Monitoring

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

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

Conclusions

I have examined all the information on Air (including ammonia, dust and odour) provided by the 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).

16.5.7 Climate

Identification, Description and Assessment of Effects

Chapter 6.3.4 of the EIS addresses Climate. Climate change is a significant global issue which affects weather and environmental conditions (air, water and soil) which consequently affects population and human health, material assets, cultural heritage, the landscape and biodiversity. Climate change is caused by warming of the climate system by enhanced levels of atmospheric greenhouse gases (GHG) due to human activities. GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3) and sulphur hexafluoride (SF_6).

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

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

The Irish Government approved “Ireland’s Climate Action Plan (CAP24)” on 21 May 2024, which is the third annual update to Climate Action Plan 2019 and the second to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. Anaerobic digestion is specifically mentioned in the Climate Action Plan 2024, with the aim to increasing heat recovery from agri-food residues through a network of anaerobic digestion/biomethane production plants as set out in the National Biomethane Strategy published on 28 May 2024.

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

However, any discussion of GHG emissions must be extended to national and global climate impact.

As part of the non-ETS (Emissions Trading Scheme) sector the GHG emissions from this site are covered by Ireland’s commitments under the Effort Sharing Decision (Decision No 406/2009/EC) and the Effort Sharing Regulation (Regulation (EU) 2018/842) from 2021.

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

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

Mitigation and Monitoring

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

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

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

Conclusions

I have examined all the information on climate provided by the 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 climatic factors.

16.5.8 The Landscape

Identification, Description and Assessment of Effects

The potential direct and indirect effects on the landscape are described in Chapter 6.1.1 of the EIS. Any disturbance of the landscape has the potential to impact on human beings and their enjoyment of the surrounding area due to visual impacts. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site and are not controlled by the Agency. The planning authority has considered the effects to be acceptable.

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

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

Mitigation and Monitoring

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

The Landscape Conclusions

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

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

16.5.9 Material Assets and Cultural Heritage

16.5.9.1 Material Assets (including resource use and waste generation)

Identification, Description and Assessment of Effects

Chapter 6.3.6 of the EIS addresses Material Assets, and include information on traffic, transport, agricultural and non-agricultural property, and resources (both natural and others) such as energy and water. Material assets such as roads and traffic and built services are dealt with in the decision of the planning authority to grant permission for the development and are not controlled by the Agency. The planning authority has considered the effect to be acceptable.

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

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

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

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

Mitigation and Monitoring

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

- Waste Generation, and
- 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.

Material assets such as roads, traffic and built services are dealt with in the decision of the planning authority to grant planning permission for the developments on-site and they have considered the effects to be acceptable.

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

16.5.9.2 Cultural Heritage

Identification, Description and Assessment of Effects

Chapter 6.3.2 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. There are ringforts 500 m and 600 m north of the site and a cist 650 m northeast of the site. It is very difficult to envisage any pathway by which emissions from the operation of the activity could impact any feature which might be present.

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

Mitigation and Monitoring

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

Cultural Heritage Conclusions

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

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

16.5.9.3 Overall Conclusions for Material Assets and Cultural Heritage

I have examined all the information on material assets andcultural 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.

16.5.10 Interactions Between Environmental Factors

Interactions of effects are considered in Chapter 6.3.5 of the EIS. The most significant interactions between the factors as a result of the activity are summarised below.

Human beings, air, and fauna and flora

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

Conclusions

I have considered the interactions between human beings, fauna and flora, soil, water, air, climate, the 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.

16.6 Reasoned Conclusion on the significant effects

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

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

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

- Emissions to air will be mitigated through inclusion of abatement (including the use of low protein feed, slurry cooling, frequent slurry removal to an anaerobic digester); 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 nighttime 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 €3,518, which reflects the anticipated enforcement effort required and the cost of monitoring.

18 Recommendation

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

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

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

Signed

Philip Stack

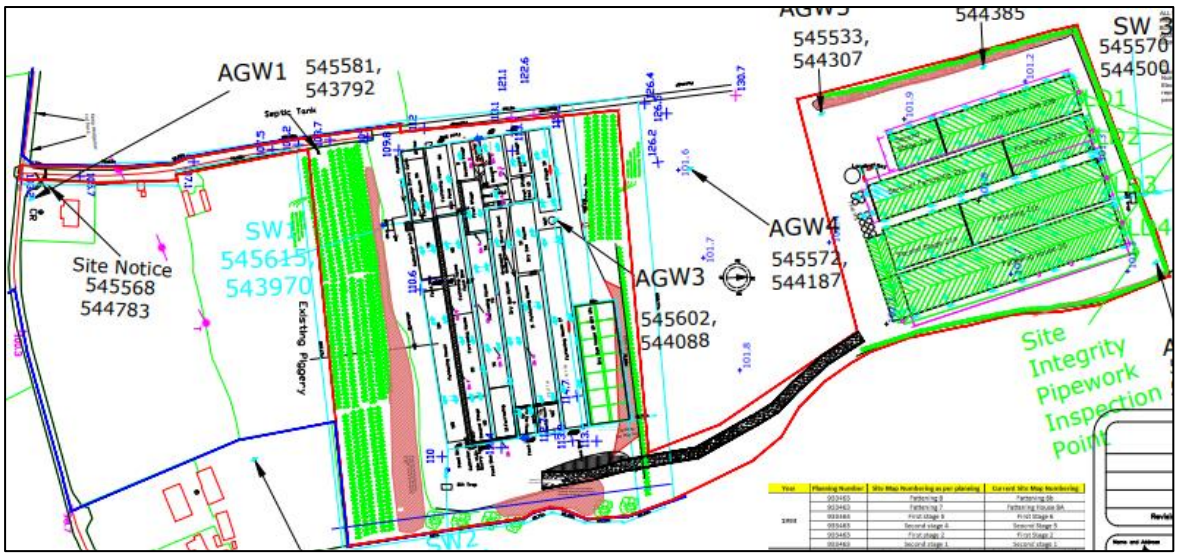
Philip Stack, ICER Inspector

Procedural Note

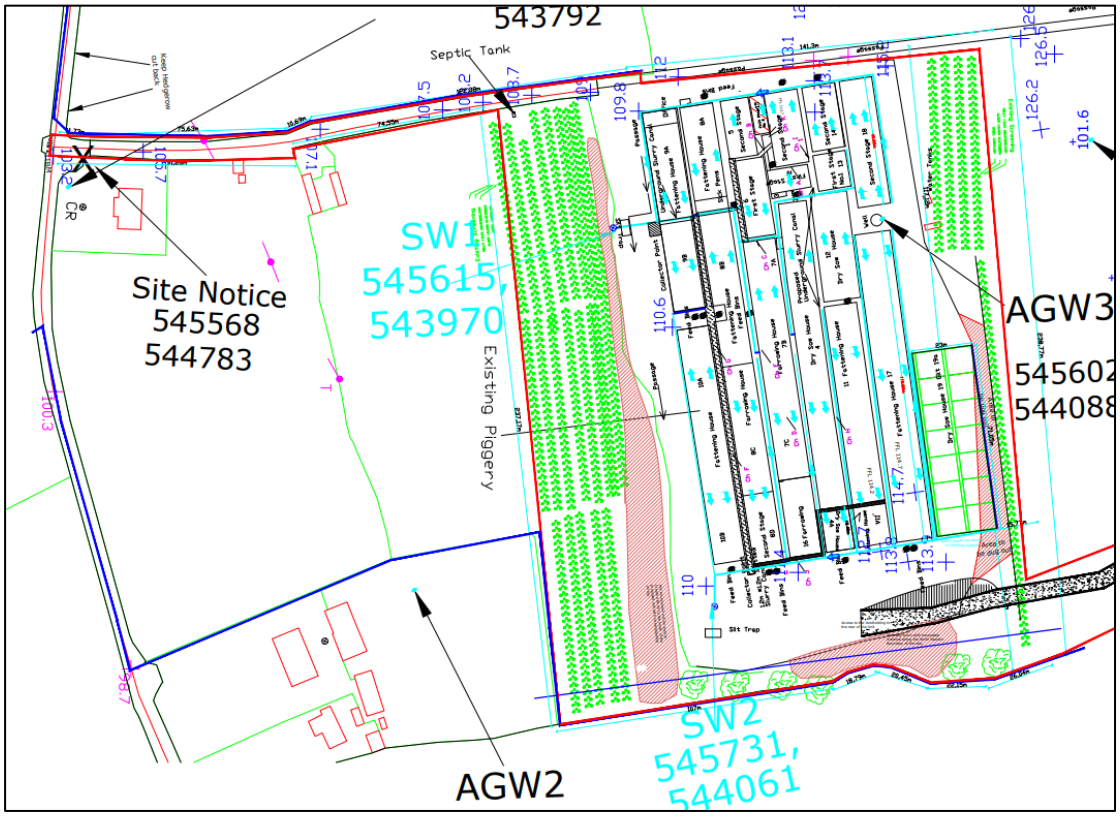
In the event that no objections are received to the Proposed Determination on the application, a licence will be granted in accordance with section 87(4) of the EPA Act, as soon as may be after the expiration of the appropriate period.

Appendices

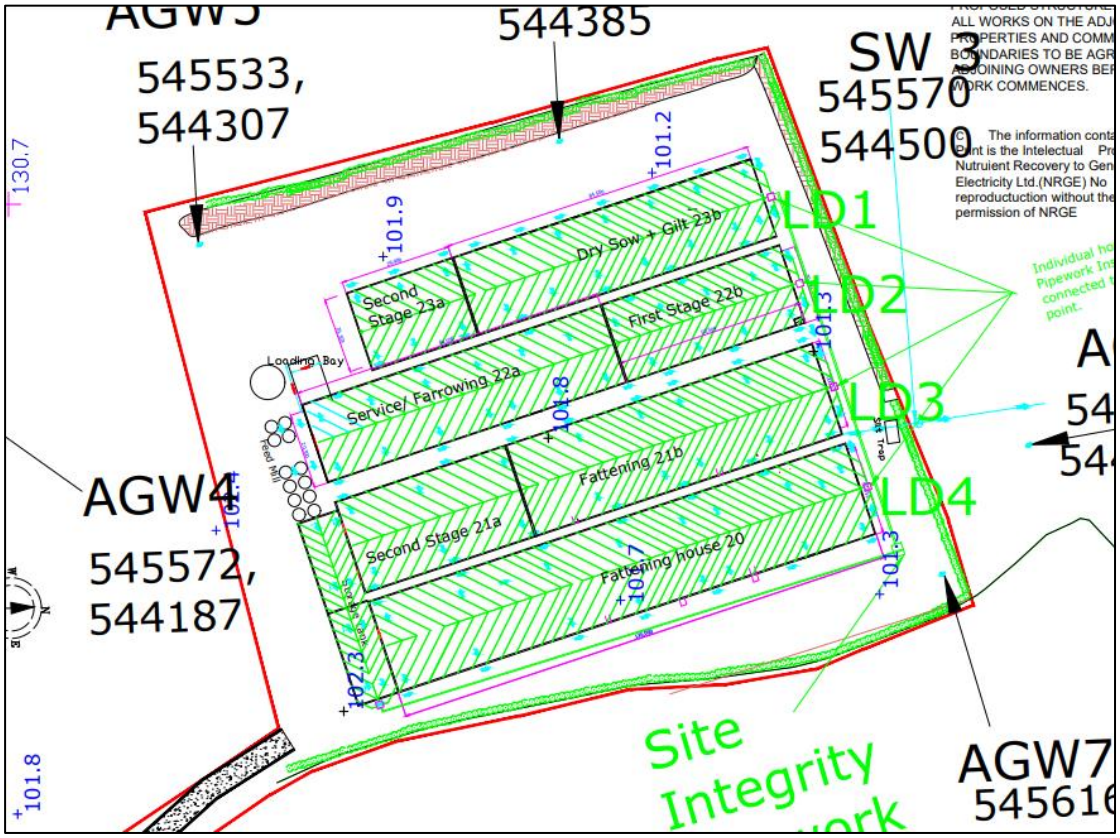
Appendix 1 Maps/Drawings



Site overview: Excerpt from the drawing titled “Carhue Piggeries Ltd. General Arrangement” received by the Agency in support of the application on 31 May 2024.



Southern Section of the site: Excerpt from the drawing titled “Carhue Piggeries Ltd. General Arrangement” received by the Agency in support of the application on 31 May 2024 showing the southern section of the site.



Northern Section of the Site: Excerpt from the drawing titled “Carhue Piggeries Ltd. General Arrangement” received by the Agency in support of the application on 31 May 2024 showing the northern section of the site.

Appendix 2 AA table

Table 2A.1: Assessment of the effects of the activities on European sites and proposed mitigation measures.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
001230	Courtmacsherry Estuary SAC	**Habitats** 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 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*) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*	*NPWS (2014) Conservation Objectives: Courtmacsherry Estuary SAC 001230. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	The site is located 1.4 km to the east of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interests for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to any potential hydrological connectivity of the project site with the European site being in excess of 2 km. I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
004219	Courtmacsherry Bay SPA	**Birds** A003 Great Northern Diver (*Gavia immer*) A048 Shelduck (*Tadorna tadorna*) A050 Wigeon (*Anas penelope*) A069 Red-breasted Merganser (*Mergus serrator*) A140 Golden Plover (*Pluvialis apricaria*) A142 Lapwing (*Vanellus vanellus*) A149 Dunlin (*Calidris alpina*) A156 Black-tailed Godwit (*Limosa limosa*) A157 Bar-tailed Godwit (*Limosa lapponica*) A160 Curlew (*Numenius arquata*) A179 Black-headed Gull (*Chroicocephalus ridibundus*) A182 Common Gull (*Larus canus*) **Habitats** Wetlands	*NPWS (2014) Conservation Objectives: Courtmacsherry Bay SPA 004219. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	The site is located 1.4 km to the east of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to any potential hydrological connectivity of the project site with the European site being in excess of 2 km. The project site is not located within the vicinity of any known *breeding* site for Great Northern Diver (*Gavia immer*), Shelduck (*Tadorna* tadorna), Wigeon (*Anas penelope*), Red-breasted Merganser (*Mergus serrator*), Golden Plover (*Pluvialis apricaria*), Lapwing (*Vanellus vanellus*), Dunlin (*Calidris alpina*), Black-tailed Godwit (*Limosa limosa*), Bar-tailed Godwit (*Limosa lapponica*), Curlew (*Numenius ariquata*), Black-headed Gull (*Chroicocephalus ridibundus*), or Common Gull (*Larus canus*) *at this European site.* I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
000091	Clonakilty Bay SAC	**Habitats** 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)*	*NPWS (2014) Conservation Objectives: Clonakilty Bay SAC 000091. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	The site is located 5.7 km to the southwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
004081	Clonakilty Bay SPA	**Birds** A048 Shelduck (Tadorna tadorna) A149 Dunlin (Calidris alpina) A156 Black-tailed Godwit (Limosa limosa) A160 Curlew (Numenius arquata) **Habitats** Wetlands	*NPWS (2014) Conservation Objectives: Clonakilty Bay SPA 004081. Version 1. National Parks and Wildlife Service, Department of*	The site is located 5.7 km to the southwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interests for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Arts, Heritage and the Gaeltacht.	The project site is not located within the vicinity of any known breeding site for Shelduck (*Tadorna tadorna*), Dunlin (*Calidris alpina*), Black-tailed Godwit (*Limosa limosa*) or Curlew (*Numenius arquata*) at this European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
004191	Seven Heads SPA	**Birds** A346 Chough (*Pyrrhocorax pyrrhocorax*)	*NPWS (2025) Conservation Objectives: Seven Heads SPA 004191. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	The site is located 6.0 km to the southwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. The project site is not located within the vicinity of any known breeding site for Chough (*Pyrrhocorax pyrrhocorax*) at this European site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
				I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
004190	Galley Head to Duneen Point SPA	**Birds** A346 Chough (*Pyrrhocorax pyrrhocorax*)	*NPWS (2025) Conservation Objectives: Galley Head to Duneen Point SPA 004190. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	The site is located 9.5 km to the southwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. The project site is not located within the vicinity of any known breeding site for Chough (*Pyrrhocorax pyrrhocorax*) at this European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
001061	Kilkeran Lake and Castlefreke Dunes SAC	**Habitats** 1150 Coastal lagoons* 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*	*NPWS (2016) Conservation Objectives: Kilkeran Lake and Castlefreke Dunes SAC 001061. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs*	The site is located 14.8 km to the southwest of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site. I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.
004021	Old Head of Kinsale SPA	**Birds** A188 Kittiwake (*Rissa tridactyla*) A199 Guillemot (*Uria aalge*)	*NPWS (2025) Conservation Objectives: Old Head of Kinsale SPA 004021. Version 1. National Parks*	The site is located 16.6 km to the east of the installation. I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interests for this European Site.

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			and Wildlife Service, Department of Housing, Local Government and Heritage.	I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site. The project site is not located within the vicinity of any known breeding site for A188 Kittiwake (*Rissa tridactyla*) or A199 Guillemot (*Uria aalge*) at this European site. I am satisfied beyond reasonable scientific doubt that ammonia emissions associated with the changes to the activity from the project site will not cause an impact on the conservation objectives for this European Site.

Appendix 3 Relevant Legislation

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