This Report has been cleared for submission to the Board by Programme Manager, Marie O'Connor.

Signed: Marie O'Connor ***Date:*** *4/09/2023*

OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE APPLICATION, LICENCE REGISTER NUMBER P0467-03

TO: DIRECTOR

FROM: Philip Stack, ELP Inspector	**DATE: 4 SEPTEMBER 2023**

Applicant:	Woodville Pig Farms Unlimited Company
CRO number:	246361
Location/address:	Woodville and Ballyknockane, Ballmackey, Nenagh, County Tipperary
Application date:	26/05/2020
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 30 kg.
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 30 kg), and 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: Expansion of an existing licensed integrated sow unit across two sites from a capacity of 920 sows and 8,000 production pigs to 1,650 sows and 12,420 production pigs.	
Additional information received:	Yes (05/10/2020, 14/05/2021, 11/08/21, 17/09/21, 03/12/21, 22/03/22, 20/06/22, 01/09/22, 20/09/22, 14/10/22, and 24/01/23)
No of submissions received:	Six

Environmental Impact Assessment required: Yes	Stage 2 Appropriate Assessment required: Yes
Environmental Impact Assessment Report submitted (EIAR): Yes (26/05/2020)	Natura Impact Statement (NIS) submitted: Yes (20/06/22)
Site visit: None	Site notice check: 25/06/2020

1. Introduction

This is an assessment of a review 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).

Woodville Pig Farm Unlimited Company owns and operates an integrated sow unit across two sites located at Woodville and Ballyknockane, Ballymackey, Nenagh, County Tipperary, both sites are currently licensed under licence ref. no. P0467-02.

Woodville Pig Farms Unlimited Company was originally licensed on 29 March 2000, to operate a 620-sow integrated unit located at Woodville, Ballymackey, Nenagh, County Tipperary (Ref. No. P0467-01). By agreement with the Agency's Office of Environmental Enforcement, the maximum licensed animal numbers were amended to 220 farrowing sows, 700 dry sows, 109 gilts, 12 boars, 3,840 weaners and 0 production pigs, i.e., a 920-sow breeding unit, on 20 April 2004.

In response to an application by the licensee, a revised IPPC licence (Ref. No. P0467-02) was issued on 27 July 2012 to incorporate a finishing unit at Ballyknockane, Ballymackey, Nenagh, County Tipperary within the licence. This allowed for a total capacity of 920 sows (220 farrowing sows and 700 dry sows), 109 gilts, 12 boars, 3,850 weaners and 8,000 finishing pigs across the two installations, approximately 1.5 km apart, at Woodville and Ballyknockane. The licensed installation currently employs 11 people.

This licence review was requested to allow for an increase in stock numbers, as shown in Table 1.1, demolition of existing pig housing and the construction of new houses, and changes to the site boundaries. These proposed changes apply only to the breeding unit at Woodville. There will be additional emission limit values (both to new and existing houses) and licence conditions applied to bring the installation into compliance with the CID.

Table 1.1: Application details.

Pig category	Existing[1]	Licensee proposed
Sows	920	1,650
Weaners	3,850	8,400
Maiden gilts	109	Included in production pigs' number below
Production pigs	8,000	12,420
Total no. animals	12,879	22,470

The Agency issued a notice on 26 May 2023 under Regulation 19(2) of the Regulations, stating that the Agency was of the opinion that the application for a licence review had been abandoned due to the submission of inadequate responses to the Agency's requests for further information (RFI). The licensee engaged with the Agency following the issuance of this notice.

[1] Categories listed as per existing licence P0467-02.

A map of the amended site layout and boundary 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 farm yards. The main activities at this installation occur during normal working hours. 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 Woodville breeding unit produces weaners which currently, upon reaching a weight of 32-40 kg, are transferred to the Ballyknockane finishing unit to be brought to the market weight of 100-110 kg, at which point they are transported offsite for slaughter and processing. The Woodville and Ballyknockane installation occupies two sites of approximately 13.7 acres and 10.7 acres respectively.

The design of the houses used for these activities is of a simple closed building of block and steel/timber construction. Concrete slurry storage and transfer infrastructure are constructed beneath the houses. The new slurry tanks will have a leak detection system. The principal inputs to the operation are feed, water, veterinary medicines and energy (all processes and services are powered by electricity). The main by-product of pig rearing is organic fertiliser (slurry). These are discussed in further detail below.

The licensee proposes a number of developments to the Woodville breeding unit, including demolition of an existing gilt house, two weaner houses, and one first-stage weaner house, construction of a modern second-stage weaner house and a new grower/finisher ('pre-finisher') house, extension of Farrowing Unit 1 and a weaner house, conversion of Farrowing Unit 2 to loose sow accommodation, and construction of a new slurry reception tank and new covered, external, above-ground slurry tank. Enabled by the developments on-site, the licensee proposes to increase stock numbers on-site to 1,650 sows, 8,400 weaners, and 12,420 finishing pigs. No changes are proposed to the Ballyknockane finishing unit.

The licensee proposes to amend the site boundary to add lands along the northern and eastern boundary of the site to encompass the new developments and remove a residential dwelling and parcel of agricultural land on the southern boundary, which are not used in association with the pig farming activity.

The licensee initially proposed removing the milling areas at the Woodville and Ballyknockane sites from within the site boundary. These areas were removed from within the site boundary during the last licence review (P0467-02), in response to an objection by the licensee to the proposed determination issued under that review. Feed milling and mixing is an integral part of the activity (as per Commission Implementing Decision of 15 February 2017 establishing BAT conclusions for the intensive rearing of poultry or pigs (2017/302/EU)). For this reason and because the milling areas are fully integrated with the activity, including shared storm water and foul water drainage and being inaccessible except via the licensed site, it is proposed that the milling areas be reinstated within the site boundary. The licensee has been informed of this interpretation.

3. Planning Status

An EIS was submitted with the previous licence application (Ref P0467-02) in 2008 and the Agency carried out an assessment for the purposes of EIA.

On 15th July 2020, Tipperary County Council granted planning permission (Ref: 20/211) for the demolition of a gilt house, two weaner houses and one first stage weaner house, construction of a modern second stage weaner house and extension of a farrowing house, extension of a loose sow house to provide additional first stage weaner accommodation, construction of a new pre-finisher house for slow growing pigs, construction of a slurry reception tank and all associated site development works on the existing Woodville breeding unit to accommodate an overall capacity on the farm of 1,650 sows and 4,200 production pigs (described in the planning documentation as 'pre-finishers').

This expansion work has not yet been commenced, aside from initial site clearance works. The licensee proposes to commence construction upon receiving a revised licence from the Agency authorising the higher stock numbers and anticipates construction will be completed 6-12 months later.

To comply with BAT, the licensee proposed building a covered above-ground slurry store, to be built adjacent to the existing piggery. The licensee applied to Tipperary County Council for planning permission (Ref. 21/1371) to construct this external slurry store on 15 September 2021 and planning was granted on 07 December 2021.

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

The licensee has submitted the EIAR associated with planning application 20/211. Having reviewed the planner's reports for previous planning permissions, it is considered that the EIAR 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 EIS relating to the 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 activities.

4. Environmental Impact Assessment (EIA) Screening

In accordance with Section 83(2A) of the EPA Act 1992 as amended, the Agency must ensure that before a licence or revised licence is granted, that the application is made subject to an EIA, where the activity meets the criteria outlined in Section 83(2A)(b) and 83(2A)(c).

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

The changes to the activities exceed the following thresholds in 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 EIAR was submitted to the Agency as part of the application on 26 May 2020. 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 submitted on 11 August 2021. Additional conditions have been incorporated into the RD to address BAT Conclusions are detailed throughout this report. Any relevant BAT-AELs have been specified in the emissions sections of this report.

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 from the Woodville and Ballyknochane units are detailed below (Table 6.1 & 6.2).

Table 6.1: Nearest third-party residential dwellings from the Woodville breeding unit.

Distance from Site	Direction from Site
300 m	West
400 m	Southeast

Table 6.2: Nearest third-party residential dwellings from the Ballyknockane finishing unit.

Distance from Site	Direction from Site
40 m - 410 m (11 houses)	North/Northwest

6.1.3 Dust

Dust may arise from the expulsion of warm air from ventilation systems on-site, vehicle movements, removal of organic fertiliser, feed milling and filling of meal storage bins and the loading and unloading of animals during periods of dry weather. The pigs are to be housed on fully or partially 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. Dust is not expected to be a significant issue beyond the installation boundary.

No complaints were received in relation to dust for this site by the Agency or by the licensee. The nearest third-party residential dwellings are given in Tables 6.1 & 6.2 above.

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

While the potential odour impacts at the finishing unit at Ballyknockane have been considered in this assessment, despite no changes being proposed there, the assessment of potential odour impacts has focused on the Woodville breeding unit portion of the site, at which all proposed changes to the activities are to occur. The Ballyknockane site is 1.5 km east of the Woodville breeding unit and given this distance, it is not foreseen that there would be a cumulative impact of odour from the installations.

Odour arising from the activities could have the potential to cause impairment to those living nearby. The land in the immediate vicinity of the installation is farmland, however there are two third-party residential dwellings within a radius of 500 m of the Woodville breeding unit: approximately 300 m to the west and 400 m to the southeast. The prevailing wind at the site is from the southwest. There are 11 houses between 40 m and 410 m north/northwest of the Ballyknockane finishing unit.

The pig houses will be cleaned at the end of each batch. Slurry shall be removed from below houses 1, 1A, 2, 4, 8, 13, 14, 15 and 16 on a frequent basis (at least once fortnightly) via a vacuum system or by flushing to an external, covered slurry store. Agitation of the slurry is to be minimised. The licensee proposes to reduce the crude protein concentration of all diets used on farm by 1%, which research indicates leads to a reduction in odour emissions by 10% per 1% reduction in crude protein concentration. These odour mitigation methods proposed by the licensee represent BAT.

One complaint relating to odour was received by the Agency in 2014. No further complaints or submission relating to odour have been received by the Agency or by the licensee.

The odour impact potential of the installation has been assessed in accordance with the EPA's recently published *Instruction note regarding odour emissions from intensive agriculture pig installations* [2].

The maximum predicted ground level concentration of odour at the closest sensitive receptor to the Woodville breeding installation was less than or equal to 1.34 OU_E/m^3 (C98, 1hr) for the worse case meteorological year, substantially less than the target for new intensive agricultural installations of 3 OU_E/m^3. Therefore, odour is not expected to be a significant issue.

The odour emissions from the Ballyknockane finishing unit were not modelled as there are no changes proposed at this site. Dietary crude protein will be reduced at this site and therefore a slight reduction in odour emissions is expected.

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 or any other legitimate uses of the environment beyond the installation boundary (Condition 5).
- To use a diet formulation and nutritional strategy to reduce the total nitrogen and phosphorus excreted, as per BAT 3 and BAT 4 (Condition 6).
- The RD limits the crude protein content of the animal feed for each animal category to the following maximum values (Condition 6 and Schedule C.1.2):
    - Dry (i.e. mating and gestating) sows – 14.5%;
    - Farrowing/lactating sows – 18.5%;
    - Gilts – 16.5%;
    - Production pigs – 16.5%; and
    - Weaners – 18.0%.
- To use a combination of the techniques listed in BAT 13 to prevent/reduce odour emissions/impact from the site (Condition 6).
- An odour management plan shall be submitted within, three months of the date of grant of licence, outlining odour reduction/abatement measures appropriate to the site and be reviewed annually (Condition 6).
- That carcasses stored on-site will be covered in covered leak-proof containers and transported offsite in covered, leak proof containers at least fortnightly (Condition 8).

6.1.5 Ammonia

The report "*Ireland's Informative Inventory Report 2023*[3]*'* (EPA, 2023) identifies agriculture as the primary contributor (99.4%) of Irish ammonia emissions in 2021, emitting a total of 124.65 kilotonnes (kt) of ammonia in that year. According to that report, ammonia emissions from the pig sector in 2021 accounted for 6.4 kt. The Department of Agriculture, Food and the Marine (DAFM) has published a '*Code of Good*

[2] https://www.epa.ie/publications/licensing--permitting/industrial/ied/EPA-Instruction-note-for-the-assessment-of-odour-emissions-from-Intensive-Agriculture-pig-installations.pdf
[3]https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/Ireland-IIR-2023-finalv2.1.pdf

Agricultural Practice for reducing Ammonia Emissions from Agriculture[4]', as required by the National Emission Ceiling Directive (NECD). When the proposed redevelopment of the site is complete the Woodville and Ballyknockane units will emit approximately 13.3 and 28.8 tonnes of ammonia per annum, respectively, giving a total of 40.2 tonnes per annum.

Ammonia emissions from these activities could have the potential to impact sensitive receptors in the vicinity of the installation. The Agency screened the impact of ammonia emissions and nitrogen deposition at European sites using a screening model (SCAIL Agriculture[5]) 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 in the Scohaboy (Sopwell) Bog SAC, Kilduff and Devilsbit Mountain SAC, Slievefelim to Silvermines Mountains SPA, Sharavogue Bog SAC, Lough Derg, North-east Shore SAC, Lough Derg (Shannon) SPA, Bolingbrook Hill SAC, Liskeenan Fen SAC, Silvermine Mountains SAC, Silvermines Mountains West SAC, Lower River Shannon SAC, Kilcarren-Firville Bog SAC, Lower River Suir SAC, Arragh More (Derrybreen) Bog SAC, Keeper Hill SAC, Ballyduff/Clonfinane Bog SAC, Lisduff Fen SAC, Slieve Bloom Mountains SPA, Slieve Aughty Mountains SPA, River Shannon Callows SAC, Middle Shannon Callows SPA, Cloonmoylan Bog SAC, Island Fen SAC, Anglesey Road SAC, Dovegrove Callows SPA, Barroughter Bog SAC, River Little Brosna Callows SPA, Slieve Bloom Mountains SAC, Rosturra Wood SAC, Derrycrag Wood Nature Reserve SAC, Redwood Bog SAC, Ridge Road, SW of Rapemills SAC, Loughatorick South Bog SAC, River Nore SPA, All Saints Bog SPA, All Saints Bog and Esker SAC, Pollnaknockaun Wood Nature Reserve SAC, and Slieve Bernagh Bog SAC.

Process emissions from the site will contribute insignificantly to ammonia and nitrogen deposition levels at any other designated 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 Agency has issued a procedure to assist applicants in undertaking an assessment of the impacts of ammonia and nitrogen titled "*Assessment of the impact of ammonia and nitrogen on Natura 2000 sites from intensive agriculture installations*" (EPA, May 2021[6]). 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 requirements of AG4[7], such as house design, type and variations of the components and position of the ventilation system, and including proposed ammonia mitigation measures including reduced protein concentration in feed,

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

frequent slurry removal, covering of external slurry stores, and installation of convex floors with separate manure and water channels.

Although the Agency engaged with the licensee on multiple occasions regarding the quality of the modelling undertaken, the modelling remained compromised by multiple errors and was not in accordance with the Agency's AG4 guidance. The licensee has therefore not satisfactorily demonstrated that the proposed scale of activity will not negatively impact on nearby Natura 2000 sites. To ensure no negative impacts on Natura 2000 sites, the RD sets animal number limits at a level (see Table 6.3) which, when combined with the mitigation measures proposed by the licensee, will ensure no net increase in ammonia emissions from the installation. Consequently, qualifying interests in Natura 2000 sites will not be negatively affected by the change in the scale of the activity at the installation, as there will be no net increase in ammonia emissions.

Table 6.3: Application details.

Pig category	Existing	Licensee proposed	Agency proposed
Sows	920	1,650	1,575
Weaners	3,850	8,400	8,020
Maiden gilts	109	Included in production pigs' number below	Included in production pigs' number below
Production pigs	8,000	12,420	11,870
Total no. animals	12,879	22,470	21,465

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 per animal. The licensee proposed a number of measures in order to meet the requirements of BAT, including BAT 3 (nutritional strategy to reduce nitrogen excretion), BAT 16 (slurry stores) and BAT 30 (reduction of ammonia emissions to air from each pig house) which have been accounted for in the submitted ammonia modelling.

In the absence of any ammonia reducing techniques, this redeveloped installation would emit approximately 62.0 tonnes of ammonia per annum. By incorporating the ammonia reducing techniques detailed below, and the application of nutritional and slurry management techniques, the ammonia emissions from the installation will remain approximately 40.2 tonnes per annum.

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 activities 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 for each animal category (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 agitation of slurry and having a rigid cover in place.
- To use the following BAT 30 techniques to reduce ammonia emissions to air from each house for pigs:
    - A convex floor and separated manure and water channels (in case of partly slatted pens) in houses 2B, 15 and 16 (Condition 6);
    - Frequent removal of slurry to an external, covered slurry store from houses by either vacuum (houses 4 (production pigs), 13, and 14) or by flushing (houses 1, 1A, 2, and 8) (Condition 6); and
    - A deep pit with nutritional management techniques for all houses at the Ballyknockane site and houses 2A, 3, 4 (gilts), 5, 6, and 10 at the Woodville site (Condition 6).
- To complete an estimation by measurement of ammonia emissions from the low emission houses in accordance with BAT 25 (Schedule C).

The Agency has set the emission limits in Schedule B.1 in accordance with those set out in the CID and/or based on those modelled in the impact assessment and are towards the middle of the range set out in the CID.

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

6.2 Emissions to Water and Ground

6.2.1 Emissions to Surface Waters

There are no direct process emissions to surface waters from these activities.

6.2.2 Emissions to ground/groundwater

There are no direct process emissions to ground/groundwater from these activities. 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 for the treatment of sanitary effluent at the Woodville breeding unit. The RD includes a standard condition which requires the licensee to maintain a wastewater treatment plant for the treatment of sanitary effluent and that the waste water treatment system and percolation area shall satisfy the criteria set out in the *Code of Practice: Domestic Waste Water Treatment Systems (Population Equivalent ≤ 10)* published by the EPA as per the existing licence.

6.3 Storm water discharges

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

At the Ballyknockane finishing unit, clean storm water discharges via a single, existing discharge point (SW-1) into a field drain on the southern boundary of the site. At the Woodville breeding unit, 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 a single, existing discharge point (SW-2) into a field drain on the southern boundary of the site.

Neither SW-1 nor SW-2 currently has a silt trap installed prior to discharge, the RD requires the licensee to install silt traps within three months of the grant of the licence (Condition 6). No other changes are proposed to the stormwater discharge points.

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 6.4: Stormwater discharge point details for the Woodville breeding unit.

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 >> Wilton Stream >> Ollatrim River
SW-2	Visual (weekly); COD/BOD (as required by the Agency)	Silt trap	Roofs and clean yards	Field drain >> Wilton Stream >> Ollatrim River

The drain to which SW-2 discharges flows to the Wilton Stream, which joins the Ollatrim River approximately 1.4 km downstream of the installation. SW-1 flows via field drains directly to the Ollatrim River. The Ollatrim River currently has a WFD status of 'Good' (waterbody code: IE_SH_25O010250). There are no identified drinking water abstraction points on the Wilton Stream or the Ollatrim River.

The storm water discharged through SW-1 and SW-2 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 pig manure and during the loading or unloading of animals. The areas around the pig houses where the loading and unloading occurs, will be concreted and designed in such a way that any pig manure will be diverted to the slurry storage tanks under the houses and when the houses are washed out. 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 existing and 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 the licensee diverts all uncontaminated storm water to the storm water drainage system (Condition 6);
- That the licensee maintains an up-to-date site drainage map on-site, and that the storm water drainage system be inspected weekly and maintained properly at all times (Condition 6);
- That the licensee maintains a storm water/rainwater collection and drainage system for all pig houses on-site (Condition 6);
- That the licensee maintains inspection chambers at the outlets of the storm water drainage system (Condition 3);
- That the licensee provides and maintains a silt trap on all existing storm water discharge points within three months of the date of grant of the licence (Condition 6);

- That the storm water discharge is visually inspected weekly and monitored for Chemical Oxygen Demand (COD) or Biological Oxygen Demand (BOD) as required by the Agency, in accordance with Schedule C.2.3 Monitoring of Storm Water Discharges.

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

6.4 Noise

The main sources of noise at the installation include the operation of equipment, ventilation systems, the emergency generator, vehicle deliveries/collections, and the animals. The installation is located in a rural, agricultural area, but is 1.8 km from the M7 Motorway. As mentioned earlier, the nearest third-party residential dwelling is 300 m away from the breeding unit and 40m from the Ballyknockane (finishing) unit

The licensee has submitted a noise impact assessment report, conducted in support of planning application ref. no. 20/211. The report predicts worst-case scenario noise levels, at all noise sensitive locations, to be below the site's existing EPA license daytime limit of 55 dB(A) and under normal operations and the night-time limit of 45 dB(A). Noise is therefore not expected to cause an impairment of amenities.

Noise emissions are 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 the licensee carry out a noise survey of the site operations, as required by the Agency (Condition 6).

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

7. Waste Generation

Certain wastes are and will be generated on-site as part of the licensable activities. Waste generated on-site mainly comprises 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 and will employ a number of measures at the installation for the prevention and/or minimisation of waste.

Table 7.1: Waste generation

Waste Type	Estimated quantity (tonnes)
Animal Carcasses	164
General Waste	6
Fluorescent Tubes	0.030

Veterinary/chemical Waste	0.018

As detailed in attachment 8.2 of the application form, and 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 fly and rodent control programme is in place and will be extended to cover the expanded site. The programme as implemented will be in line with Bord Bia and Department of Agriculture, Food and The Marine requirements.

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

8. Organic Fertiliser

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

Table 8.1: Organic fertiliser

Quantity produced per annum	23,702 m^3
Number of storage tanks/stores on-site	13
Total storage capacity on-site (ex-freeboard)	21,713 m^3
No. weeks storage on-site	47
End use offsite	Landspreading by customer farmers
Contractor Name	NA
Contractor DAFM No.	NA

When 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.

Condition 8 of the RD requires that the licensee maintains records of organic fertiliser sent offsite in accordance with the requirements of the Nitrates Regulations[8]. The licensee is required under the licence, to submit to DAFM by the 31st of December annually details in relation to the quantity of organic fertiliser (pig slurry and wash water) exported (Record 3 form) offsite. The record must also be maintained at the installation for inspection by the Agency, Local Authority or DAFM. DAFM may use the record of export of organic fertiliser to identify the recipient of the organic fertiliser and the quantity received.

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

The Animal By-Product (ABP) Regulations[9] 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 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 activities for which the licence application is made and does not extend to the lands on which organic fertiliser may be used as fertiliser. The Nitrates Regulations specify when organic fertiliser can be applied to land and the application rates, and these are enforced by the DAFM and Local Authorities.

Under the ABP Regulations, pig manure 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 slurry produced by the animals will be contained temporarily in the slatted tanks under each animal house. The loading and unloading of animals and the areas around the houses will be concreted and designed such that any pig manure will be diverted to the slurry storage tanks under the houses during animal loading and unloading. In accordance with the requirements of BAT 30, the licensee has identified that he will employ the technique of frequent slurry removal to external stores in the new pig buildings (2B, 15 and 16) and some of the existing buildings (1, 1A, 2, 4 (production pigs), 8, 13, and 14). The licensee will construct an overground external covered slurry store top facilitate frequent removal of slurry from the tanks under the pig houses. In line with the recommendations in the associated BREF document, the RD requires the licensee to remove organic fertiliser from the tanks under the animals via vacuum to the external stores at least fortnightly.

The Nitrates Regulations (Article 10(1)) require that a minimum of 26-weeks' storage capacity for organic fertiliser is provided. As can be seen in Table 8.1, the licensee has 47 weeks of slurry storage available.

The quantity of nitrogen and phosphorus generated by the activities at the proposed licence capacity of an integrated unit with 1,575 sows is approximately:

- 137,025 kg-N, and
- 26,775 kg-P,

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

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

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

- To monitor the total nitrogen and phosphorus excreted in manure annually, in accordance with BAT 24 (Condition 6).
- That slurry only be stored under the animal houses or in designated manure stores (Condition 8).
- That any organic fertiliser spilled to ground during loading, shall be collected and returned to storage or to the vehicle into which it was being loaded (Condition 8)
- That all storage tanks are integrity assessed and before utilisation for proposed tanks, and at least once every three years thereafter (Condition 6).
- That the licensee uses a combination of the techniques listed in BAT 6 to reduce the generation of 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 estimated quantities of resources used in 2019 and estimated quantities to be used at the capacity proposed by the licensee are given below. As the number of pigs proposed in the RD is less than that proposed by the applicant, a proportionate decrease in resource usage is anticipated.

Table 9.1: Resource use per annum

Resource	Current usage per annum	Predicted usage per annum
Electricity	629,980 kWh	1,130,400 kWh
Water (on-site well) Water Abstraction registration required: Yes	5,811 m^3	16,333 m^3
Feed	11,800 t	18,300 t
Kerosene/Diesel	Back-up generator only	

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

The primary source of water for the activities is and will be a network of five on-site wells: three located at the Woodville breeding installation and two at the Ballyknockane finishing site. The RD requires the licensee to carry out annual monitoring of the wells. Both parts of the installation are located on the Nenagh groundwater body (IE_SH_G_178), a moderately productive bedrock aquifer of local importance and extreme vulnerability, 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 has registered the abstractions, ref. R02517-01 and R02518-01.

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 audit of the efficient use of resources and energy in all site operations, within 12 months of date of grant of the licence due to the expansion and redevelopment of the site, this shall be 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 activities. For this installation, potential accidents and measures for prevention/limitation of consequences are given in the table below.

Table 10.1 Potential accidents and mitigation measures

Potential accidents and measures for prevention/limitation of consequences	
Potential for an accident or hazardous/emergency situation to arise from activities at the installation	- Surface water or ground/groundwater contamination during pig removal; - Surface water contamination by spillage of organic fertiliser, fuel or other polluting material; - Ground/groundwater contamination as a result of spillage of organic fertiliser, fuel or other polluting material; - 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 storage of potentially polluting liquids in bunded areas; - The concreting of yards around houses; - The protection of fuel tanks from accidental damage; and - The separation of wash water and clean storm water, with wash water diverted directly to the organic fertiliser storage tanks under the animal houses.
Additional measures provided for in the RD	- The regular visual examination and inspection of the storm water discharge pointsand storm water drainage system (Condition 6); - The provision of more than 26-weeks organic fertiliser (pig slurry) storage capacity (Condition 3); - Accident prevention and emergency response procedures requirements (Condition 9); and - 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 activities (site closure). The licensee has provided a list of measures to be taken in the event of site closure/cessation of activities. Condition 10 of the RD requires the proper closure of the activities with the aim of protecting the environment.

Where an activity involves the use, production or release of Relevant Hazardous Substances, and having regard to the possibility of soil and groundwater contamination at the site of the installation, the IED requires operators to prepare a baseline report. A baseline screening assessment was undertaken by the licensee, in accordance with Stages 1 to 3 of European Commission Guidance[10].

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 activities, 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 the year 2000, Licence No. P0467-01. 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.

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

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

Management Plan (CRAMP) and Financial Provision (FP), in accordance with Agency guidance. Under this assessment it has been determined that ELRA, CRAMP and FP were not required.

Fit and Proper Conclusion
It is my view that the licensee can be deemed a Fit and Proper Person for the purpose of this review.

13. Submissions

While the main points raised in the submission 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 submission are noted and addressed in this Inspector's Report and the submission was taken into consideration during the preparation of the Recommended Determination (RD).

1.	**Name & Position:** Mr. Peter Sweetman	**Organisation:** Peter Sweetman and on behalf of Wild Ireland Defence CLG	**Date received:** 13 October 2020

Issues raised:

The issues raised in the submission are as follows:

In the submission Mr. Sweetman indicated that "it is not possible to perform an Appropriate Assessment Screening to the standard required by Finlay J in Kelly -v- An Bord Pleanála [2014] IEHC 400 (25 July 2014). Without the full information as to the method and place of disposal of the waste.

It is our submission that the EPA Acts as interpreted by the EPA are not in compliance with the Environmental Impact Assessment Directive Article 11."

Agency response:

I am satisfied that I have sufficient information available to complete an Appropriate Assessment Screening, in an appropriate manner, to assess in view of best scientific knowledge and the conservation objectives of the site, if the project individually or in combination with other plans or projects is likely to have a significant effect on a European Site. An Appropriate Assessment Screening Determination was issued on 23rd September 2020, which included specific reasons for determining that a Stage 2 Appropriate Assessment was required, and subsequently a NIS was requested and submitted.

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

There is sufficient information to conclude beyond reasonable scientific doubt that the disposal of waste arising from the proposed project will not have any adverse effects on the integrity of any European site.

I am satisfied that the EPA's interpretation of the EPA Act as amended is in accordance with Article 11 of the EIA Directive, and members of the public have access

	to a review procedure that is impartial, fair, equitable, timely and not prohibitively expensive. Information on the EPA's licensing process is available to the public on access to administrative and judicial review procedures on the EPA's website, at http://www.epa.ie/licensing/industrialemissionslicensing/licensingprocessexplained/ As part of this licence assessment process, including EIA and AA, regard has been given to all submissions received.		
2.	**Name & Position:** Mr. Peter Sweetman	**Organisation:** Peter Sweetman and on behalf of Wild Ireland Defence CLG	**Date received:** 27 October 2022
	Issues raised: *The submission states that the CJEU has found that compliance with European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2017 (S.I. 605 of 2017) cannot be considered a mitigation measure when conducting an appropriate assessment.* **Agency Response:** The submission did not provide a reference to the Court of Justice of the European Union (CJEU) case to which it refers. However, the judgments of the CJEU form part of this review assessment, as appropriate. The landspreading of organic fertilizer was considered in carrying out AA and regard was had to the regulatory systems in place, i.e., *European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022*.		
3.	**Name & Position** Laura Broxson	**Organisation:** National Animal Rights Association	**Date received:** 17 December 2022
	Issues raised: *The issues raised in the submission are as follows:* • *The submitter states that the application should be refused as it is "not ethically acceptable to kill or consume any living creature".* • *The submission states that "Ireland's ammonia emissions have not met EU limits for 7 out of the last 9 years" and that "almost all of Ireland's ammonia emissions come from agriculture". It states that "more than half are located in Monaghan and Cavan, counties already struggling with excess manure".* • *The submission goes on to include some of the damage that can be caused by ammonia pollution and PM2.5 to the environment and human beings.* • *It concludes that "for animal rights, human health and safety, and the impact it would have on the environment, these 36 applications need to be refused".* *The submission goes on to list by Reg. No., all of the pig and poultry licence applications upon which the submission is to be made.* **Agency response:** • The principle of whether or not it is ethical to consume meat is beyond the remit of the EPA. • Ireland is addressing ammonia emissions from the agricultural sector through the implementation of 'Ag Climatise – A roadmap towards Climate Neutrality'.		

The recommendations of this document, regarding the national reduction of ammonia levels, are considered during the assessment of licence applications.

- All EPA licensed facilities are required to operate to the best available techniques (BAT) standard as specified in the Commission Implementing Decision (CID) for the intensive rearing of poultry or pigs. This includes the requirement to implement techniques for the reduction and control of ammonia emissions.
- Due to the number of intensive agriculture applications/reviews and licences, especially in the Cavan/Monaghan, the EPA published guidance on how applicants should assess the predicted impact of air emissions. This has specific restrictions on applications in the Cavan/Monaghan area.

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

4.

Name & Position:	**Organisation:**	**Date received:**
Caroline Rowley	Ethical Farming Ireland	30 December 2022

Issues raised:

The issues raised in the submission are as follows:

- *The submitter cites the Agency's responsibilities under Section 52(2) of the Environmental Protection Agency Act 1992, in relation to the Agency's need to keep itself informed of policies and objectives of public authorities, of the requirement to have regard for the need for high standard of environmental protection and the requirement to have regard to the need for precaution in relation to potentially harmful effects of emissions.*
- *The submission discusses the government's targets for reducing greenhouse gas emissions under the programme for government, DAFM's 'Ag Climatise – A Roadmap towards Climate Neutrality' (Ag Climatise) and the Climate Action Plan 2023.*
- *The submission states, the Programme for Government (inter alia) commits Ireland to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050.*
- *It cites the following from the government's Ag document: "In total, approximately 80% of the agricultural GHG inventory is related directly to the number of animals and the management of the manure they produce. This roadmap is based on stabilising methane emissions and a significant reduction in fertiliser related nitrous oxide emissions, leading to an absolute reduction in the agricultural greenhouse gas inventory by 2030. Any increase in biogenic methane emissions from continually increasing livestock numbers will put the achievement of this target in doubt".*
- *The submission notes that the Climate Action Plan 2023, emphasises that agriculture is the largest source of Ireland's emissions (33.3%).*
- *The submission notes that the application documents do not model chicken or pig population numbers; therefore it was assumed they remain stable.*
- *The submission states that approval of the application is likely to exacerbate Ireland's ongoing breach of its National Emission Reduction Target relating to ammonia. It again states that the relevant documents do not appear to model ammonia emissions from pig and poultry, and instead appear to assume the populations of these livestock types remains stable.*

	• *The submission notes that the relevant documents do not appear to model ammonia emissions from pig and poultry, and instead appear to assume the populations of these livestock types remains stable.* • *The submission states that the increase in pig or poultry numbers proposed in the application contradicts this assumption, with the resulting increase in greenhouse gases and ammonia increasing the risk of Ireland breaching (a) the greenhouse gas emissions targets to which it has committed and (b) the exacerbating its existing non-compliance with ammonia targets.* • *This amounts to a failure of duty by the Agency and would breach sections 52(2)(a), (b) and (c) of the EPA Act.* • *Ethical Farming Ireland urges the Agency to reject the application.*		
	Agency response: • The Agency, in conducting its licence assessments, has regard to the government's targets for reducing greenhouse gas emissions, the Ag Climatise document, and the Climate Action Plan 2023, as detailed in this report. • Issues in relation to climate are discussed in the EIA (Climate) section of this report in terms of Government policy, the Ag-Climatise document and the Climate Action Plan 2023. Energy efficiency is discussed in the Energy Efficiency and Resource Use section of this report. • Ireland is addressing greenhouse gas emissions from the agricultural sector through the implementation of 'Ag Climatise – A roadmap towards Climate Neutrality'. Biogenic methane is primarily associated with ruminants, which produce methane while digesting their food, and not with pigs, which are a monogastric animal. Greenhouse gas emissions from the installation are discussed further in the EIA (Climate) section of this report. • Ammonia emissions are discussed in the Emissions to Air (Ammonia) and EIA (Air) sections of this report. Regard to government policy and national plans are discussed in these sections. • The EPA has published guidance on how applicants should assess the predicted impact of ammonia emissions from their proposed installation. This application has been assessed in accordance with that guidance document. The site will be required to operate in accordance with its licence requirements including BAT which will ensure minimisation of ammonia emissions. This topic is discussed further in the ammonia section and EIA sections of this report. • The Agency is satisfied that this licence assessment meets the requirements of sections 52(2)(a), (b) and (c) of the EPA Act.		
5.	**Name & Position:** Mr. Peter Sweetman	**Organisation:** None stated	**Date received:** 25 March 2023
	Issues raised: *In the submission Mr. Sweetman quotes the following from the Courts of Justice of the European Union judgement for cases C-29317 and C-29417:* *1. Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that the grazing of cattle and the application of fertilizers on the surface of land or below its surface in the vicinity of Natura 2000 sites may be classified as a 'project' within the meaning of that provision, even if those activities, in so far as they are not a physical intervention in the natural surroundings, do not constitute a 'project' within the meaning of Article 1(2)(a) of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.*		

Agency response:

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

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

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

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

6.

Name & Position:	**Organisation:**	**Date received:**
Mr. Peter Sweetman	Peter Sweetman and on behalf of Wild Ireland Defence CLG	14 June 2023

Issues raised:

The submission:

- *States that the EPA must assess the disposal of the waste from these developments;*
- *States that the threshold for Appropriate Assessment is set out in Kelly -v- An Bord Pleanála [2014] IEHC 400 (25 July 2014);*

References four CJEU judgements in the context of Article 6 of the Habitats Directive, specifically C-323/17, C-258/11, C-293/17 and C-294/17.

Agency response:

The submitter's reference to "these developments" refers to pig and poultry industrial emissions licence applications.

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

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

The submitter quotes Case C-323/17 where the court noted that "*in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the*

	screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site". I am satisfied that the screening conducted as part of this application to determine whether or not an Appropriate Assessment was required was consistent with case C-323/17 and did not take into account measures that would mitigate any potential impacts on Natura 2000 sites. The submitter quotes Kelly -v- An Bord Pleanála [2014] IEHC 400 which references CJEU case C-258/11 where the court noted that in order for a regulatory body such as the Agency to grant approval "*it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned".* I am satisfied that there is sufficient information available to the Agency to conclude beyond reasonable scientific doubt that emissions and discharges from the proposed project will not have any adverse effects on the integrity of any European site. The Appropriate Assessment section of this report details the results of the appropriate assessment conducted as part of the licence review. The licensee has provided sufficient information regarding the wastes produced by the activity, as well as their disposal off site. More information on waste can be found in the waste section of this report. The submitter quotes cases C-293/17 and C-294/17 where the court ruled "*Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that the grazing of cattle and the application of fertilisers on the surface of land or below its surface in the vicinity of Natura 2000 sites may be classified as a 'project' within the meaning of that provision, even if those activities, in so far as they are not a physical intervention in the natural surroundings, do not constitute a 'project' within the meaning of Article 1(2)(a) of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment."* Organic fertiliser is something which may be distributed to farmers for use on their farms, but that ultimately use does not form part of the project in respect of which the Agency was considering a licence application. Ultimately, the location on which landspreading of organic fertiliser from the installation may occur, can vary across and within any given year. The spreading of organic fertiliser on farms is regulated by the European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2022 (S.I. 113 of 2022) which gives effect to the 5th Nitrates Action Programme (2022 to 2025), published in accordance with the Nitrates Directive. I am satisfied that the appropriate assessment conducted as part of this application is considered in compliance with the rulings of the Courts of Justice of the European Union judgement for cases C-293/17 and C-294/17.

14. Consultations

14.1 Cross Office Consultation

The Environmental Licensing Programme (ELP) and the Office of Environmental Enforcement (OEE) routinely liaise in relation to the licensing of the intensive agricultural sector. This in part has informed the assessment of this application.

I consulted with OEE Inspector Martina Nolan in relation to this installation and she highlighted a number of concerns regarding the exclusion of the milling areas from within the licensed site boundary stemming from a recent site visit she had carried

out, namely that the storm water and foul water drainage at the mill areas are integrated into that of the pig unit and that farm staff had indicated that the mill areas were solely used by farm staff and did not routinely supply feed to organisations other than the pig units.

No compliance investigations are active for the site. The last site visit by OEE in 2022 raised one non-compliance in relation to a fuel leakage into a bund which was not impervious to the material stored within it, and three observations relating to spilled slurry and maintenance of the storm water collection and drainage system.

14.2 Transboundary Consultations

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

15. Appropriate Assessment

Appendix 1 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 Scohaboy (Sopwell) Bog SAC, Kilduff and Devilsbit Mountain SAC, Slievefelim to Silvermines Mountains SPA, Sharavogue Bog SAC, Lough Derg, North-east Shore SAC, Lough Derg (Shannon) SPA, Bolingbrook Hill SAC, Liskeenan Fen SAC, Silvermine Mountains SAC, Silvermines Mountains West SAC, Lower River Shannon SAC, Kilcarren-Firville Bog SAC, Lower River Suir SAC, Arragh More (Derrybreen) Bog SAC, Keeper Hill SAC, Ballyduff/Clonfinane Bog SAC, Lisduff Fen SAC, Slieve Bloom Mountains SPA, Slieve Aughty Mountains SPA, River Shannon Callows SAC, Middle Shannon Callows SPA, Cloonmoylan Bog SAC, Island Fen SAC, Anglesey Road SAC, Dovegrove Callows SPA, Barroughter Bog SAC, River Little Brosna Callows SPA, Slieve Bloom Mountains SAC, Rosturra Wood SAC, Derrycrag Wood Nature Reserve SAC, Redwood Bog SAC, Ridge Road, SW of Rapemills SAC, Loughatorick South Bog SAC, River Nore SPA, All Saints Bog SPA, All Saints Bog and Esker SAC, Pollnaknockaun Wood Nature Reserve SAC, and Slieve Bernagh Bog SAC. The zone of influence used when running the SCAIL screening model was extended until such point that the ammonia emissions from the activity at the proposed scale were no longer predicted by the model to impact on European sites.

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

- Air emissions have been modelled by the Agency using a screen model (SCAIL Agriculture). The model results indicated that the potential for adverse impact of emissions to air and their consequential potential impact on sensitive

receptors cannot be ruled out due to elevated ammonia levels and / or nitrogen deposition.
- There are potential surface water pathways connecting the installation to European sites, therefore, there is potential for adverse impact of emissions to water and their consequential potential impact on sensitive receptors cannot be ruled out at European sites.

A Natura Impact Statement was received by the Agency on 03 December 2021 with updated versions submitted on 22 March 2022 and 20 June 2022.

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Scohaboy (Sopwell) Bog SAC, Kilduff and Devilsbit Mountain SAC, Slievefelim to Silvermines Mountains SPA, Sharavogue Bog SAC, Lough Derg, North-east Shore SAC, Lough Derg (Shannon) SPA, Bolingbrook Hill SAC, Liskeenan Fen SAC, Silvermine Mountains SAC, Silvermines Mountains West SAC, Lower River Shannon SAC, Kilcarren-Firville Bog SAC, Lower River Suir SAC, Arragh More (Derrybreen) Bog SAC, Keeper Hill SAC, Ballyduff/Clonfinane Bog SAC, Lisduff Fen SAC, Slieve Bloom Mountains SPA, Slieve Aughty Mountains SPA, River Shannon Callows SAC, Middle Shannon Callows SPA, Cloonmoylan Bog SAC, Island Fen SAC, Anglesey Road SAC, Dovegrove Callows SPA, Barroughter Bog SAC, River Little Brosna Callows SPA, Slieve Bloom Mountains SAC, Rosturra Wood SAC, Derrycrag Wood Nature Reserve SAC, Redwood Bog SAC, Ridge Road, SW of Rapemills SAC, Loughatorick South Bog SAC, River Nore SPA, All Saints Bog SPA, All Saints Bog and Esker SAC, Pollnaknockaun Wood Nature Reserve SAC, and Slieve Bernagh Bog SAC, 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 in approximately 9.6 km away.
- There are hydrological connections between the site and the Lough Derg (Shannon) SPA and Lough Derg North-east Shore SAC, but they are over 20 km downstream of the installation.
- The storm water collection system will include silt traps on all storm water lines draining paved areas prior to discharge of the storm water from the site.
- Waste generated on-site will be handled and stored in a manner which will ensure there is no risk to European sites and will only be sent to appropriately authorised facilities.
- The reviewed licence, if granted, relates to the site of the activities for which the licence application is made, i.e., the rearing of pigs within the installation boundary, and does not extend to the lands on which organic fertiliser may be used as fertiliser.
- 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.
- Noise levels from pig installations are low and as the nearest European Site is approximately 9.6 km north of the installation, it is considered that noise will not impact on the qualifying interests within that, or any other European Sites.

- The installation is in a rural area where the predominant farming activities involve the rearing of livestock. There are two other licensed installations within a 5 km radius of the installation, one intensive agricultural installation and a closed landfill. 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 is required to comply with BAT to minimise emissions of ammonia and nitrogen deposition at the designated sites. This includes the use of low protein feed, frequent removal of slurry to an external, covered slurry store, and low emission housing in houses 15 and 16.
- The licence restricts stock levels, which in combination with the proposed mitigation measures, will ensure that there is no net increase in ammonia emissions from the installation, and therefore no impact from the change in activity on any European Sites.

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 Scohaboy (Sopwell) Bog SAC, Kilduff and Devilsbit Mountain SAC, Slievefelim to Silvermines Mountains SPA, Sharavogue Bog SAC, Lough Derg, North-east Shore SAC, Lough Derg (Shannon) SPA, Bolingbrook Hill SAC, Liskeenan Fen SAC, Silvermine Mountains SAC, Silvermines Mountains West SAC, Lower River Shannon SAC, Kilcarren-Firville Bog SAC, Lower River Suir SAC, Arragh More (Derrybreen) Bog SAC, Keeper Hill SAC, Ballyduff/Clonfinane Bog SAC, Lisduff Fen SAC, Slieve Bloom Mountains SPA, Slieve Aughty Mountains SPA, River Shannon Callows SAC, Middle Shannon Callows SPA, Cloonmoylan Bog SAC, Island Fen SAC, Anglesey Road SAC, Dovegrove Callows SPA, Barroughter Bog SAC, River Little Brosna Callows SPA, Slieve Bloom Mountains SAC, Rosturra Wood SAC, Derrycrag Wood Nature Reserve SAC, Redwood Bog SAC, Ridge Road, SW of Rapemills SAC, Loughatorick South Bog SAC, River Nore SPA, All Saints Bog SPA, All Saints Bog and Esker SAC, Pollnaknockaun Wood Nature Reserve SAC, and Slieve Bernagh Bog SAC.

16. Environmental Impact Assessment

16.1 EIA Introduction

This assessment is being undertaken in accordance with the requirements of Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

The application was accompanied by an Environmental Impact Assessment Report (EIAR). 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 EIAR), the existing licence, Register Number: P0467-02, information received through consultation, the documents associated with the assessments carried out by Tipperary County Council and the issues that interact with the matters that were considered by that authority and which relate to the activities, written submissions, as well as considering any supplementary information where appropriate. All of the documentation received was examined and I consider that the EIAR complies with the provisions of Article 5 of the 2014 EIA Directive when considered in conjunction with the additional material submitted with the application.

I am satisfied that the information contained in the EIAR has been prepared by competent experts and that the environmental effects arising as a consequence of the activities 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 activities on the environment, as respects the matters that come within the functions of the Agency, for each of the following environmental factors: population and human health, biodiversity, land, soil, water, air and 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. In addition, the vulnerability of the activities to risks of major accidents and/or disasters has been considered. The mitigation measures proposed to address the range of predicted significant effects arising from the activities have been outlined. This Inspector's Report provides conclusions to the Agency in relation to such effects.

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

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

16.2 Consultation with Planning Authorities in relation to EIA

Consultation was carried out between Tipperary County Council and the Agency under the relevant section of the EPA Act 1992, as amended.

Tipperary County Council confirmed that planning permission ref. 20/211 is the relevant planning permission for the activities. They did not provide any further observations to the Agency on the licence application and EIAR.

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 3 of the EIAR. It examines several alternative layouts. Alternative sites, layout and design, and processes were considered. The design and layout chosen offers the licensee the best fit between proposed and existing enterprises.

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

16.5 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) population and human health;
(b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
(c) land, soil, water, air and climate;
(d) material assets, cultural heritage and the landscape;
(e) the interaction between the factors referred to in points (a) to (d).

16.5.1 Population & Human Health

Identification, Description and Assessment of Effects

Population and human health are mainly addressed in Chapter 4 of the EIAR. The potential direct and indirect effects on population and human health are associated with emissions to air, dust, odour, noise emissions, waste generation, and accidental emissions. Should emissions exceed environmental quality standards this could have implications for population and human health.

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 activities in relation to population and human health have been assessed and is considered that there is not likely to be a significant cumulative effect from the activities 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 population and human health are detailed 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.

Conclusions

I have examined all the information on population and human health, 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 activities is not likely to have any unacceptable direct or indirect effects in terms of population and human health.

16.5.2 Biodiversity

Identification, Description and Assessment of Effects

Biodiversity is mainly addressed in Chapter 8 of the EIAR. The EIAR describes the habitats and species at and in the vicinity of the installation.

There are five Natura 2000 designated site within 15 km of the application site, the closest being over 9.6 km away from the installation. The initial screening with the SCAIL screening model indicated that up to 38 Natura 2000 sites may have be impacted by the ammonia and nitrogen emissions from the installation. The licence review refers to the demolition of existing buildings and construction of larger, modern buildings in their place.

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

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

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

There is also the potential for accidental emissions to the environment, due to spillages or human error, which may impact on biodiversity. Accidental emissions are addressed in the Prevention of Accidents section earlier in this report. Landspreading of organic fertiliser could impact on water quality, however, this occurs outside of the licensed boundary. This must be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations, which are monitored and controlled by DAFM and the Local Authorities (LAs). 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 next 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 activities in relation to biodiversity have been assessed and it is considered that there is not likely to be a significant cumulative effect from the activities 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 biodiversity, 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 activities is not likely to have any unacceptable direct or indirect effects in terms of biodiversity.

16.5.3 Land and Soil

Identification, Description and Assessment of Effects

Land and soil are addressed in Chapter 9 of the EIAR. The expansion to the installation will be accommodated by demolishing some existing buildings on-site and replacing them with larger, modern buildings.

The potential direct and indirect effects on land and soil are associated with emissions to air, emissions to water, and accidental emissions. Should emissions exceed 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 land or soil. Accidental emissions are addressed in the Prevention of Accidents section earlier in this report. Landspreading of organic fertiliser could impact on land or soil, however, this occurs outside of the licensed boundary. This must be carried out in accordance with the Nitrates Regulations and Animal By-product Regulations, which are monitored and controlled by DAFM and the Local Authorities (LAs).

Cumulative effects of the activities in relation to land and soil have been assessed and is considered that there is not likely to be a significant cumulative effect from the activities 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.

Conclusion

I have examined all the information on land and 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 activities is not likely to have any unacceptable direct or indirect effects on land and soil.

16.5.4 Water

Identification, Description and Assessment of Effects

Water is mainly addressed in Chapter 9 of the EIAR. Both parts of the installation are above the Nenagh groundwater body (IE_SH_G_178) which has a Water Framework Status of 'Good' and a vulnerability of 'Extreme' and 'X - Rock at or Near Surface'. The site lies within the Lower Shannon catchment area and the Ollatrim_SC_010 sub-catchment. Storm water from the roof and yard areas will discharge to a field drain towards the Ollatrim River.

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

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

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

The site is in a rural area with most of the developments in the vicinity of the installation being dwelling houses and farmyards. There is one other intensive agriculture EPA licensed installation and one closed landfill within 5 km of the installation and no other significant industrial developments. 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 emissions and storm water discharges from the activities and from other activities/developments in the area.

Landspreading of organic fertiliser, which occurs outside of the licensed boundary, could cause pollution of surface waters or groundwater. To prevent this, the application of fertilisers to land is controlled by the Nitrates Regulations. These give legal effect in Ireland to the Nitrates Directive and to our Nitrates Action Programme (NAP) and controls the management and application of livestock manure and other fertilisers. The NAP is required to be reviewed every four years. In 2022, the Department of Housing, Local Government and Heritage undertook an Appropriate Assessment of the current NAP (5th NAP 2022-2025), which included a Natura Impact Statement (February 2022) for Ireland's 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 (2018-2021) was published in April 2018. Over the period of this river basin planning cycle, there are measures being undertaken to meet the environmental objectives of the WFD. These include measures such as implementation of the Nitrates Action Programme (Nitrates Regulations) and associated inspection regime. Targeted monitoring as envisaged under the Plan allied with multi-party enforcement (EPA/LA/DAFM) provides an early warning of potential problems/improvements and of the possible need to adapt the Plan to ensure protection of our waters.

Cumulative effects of the activities in relation to water have been assessed and is considered that there is not likely to be a significant cumulative effect from the activities 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 the licence assessment part 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 activities 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 6 of the EIAR. The installation is located in a rural location, with the nearest sensitive receptor to the breeding unit being located 300 m away and the nearest receptor to the finishing unit 40 m away. The potential direct and indirect effects of noise associated with the operation of the activities is the potential to cause nuisance for those living near the activities 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 activities in relation to noise have been assessed and is considered that there is not likely to be a significant cumulative effect from the activities 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 activities 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 of the EIAR. 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 other licensed installations within a 5 km radius of the installation, one intensive agriculture site and

a closed landfill. Emissions to air from these activities have been considered during the licensing process for each of these installations and as they are required to comply with the conditions of their licences, these installations should not have any significant emissions of odour, dust or ammonia under normal operations. In this assessment, it has already been determined that air emissions from the installation will not significantly affect local air quality.

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

According to 'Ireland's Informative Inventory Report 2022' (EPA 2022), which contains the most recent data, ammonia emissions in 2020 from the pig sector were 6.3 kt (or 5.1% of Ireland's National emissions). This installation will emit 40.2 tonnes per annum.

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

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 new 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.

Approximately 3.8% of the ammonia emissions that originate from landspreading in Ireland come from the pig sector. This equates to 1.1% of Ireland's total ammonia emissions. The organic fertiliser generated by the activities 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 activities in relation to air have been assessed and is considered that there is not likely to be a significant cumulative effect from the activities 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 dust and odour, are detailed in the following sections of the licence assessment part of this report:

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

Conclusions

I have examined all the information on Air (including 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 activities 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 10 of the EIAR 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.

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

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

However, any discussion of GHG emissions must be extended to national and global climate impact. Given the small quantity of climate altering substances that could be released from the activities, in a national context, I consider that the impact of any emissions from the installation on climatic considerations should be minimal. 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.

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 the licence assessment part 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 activities is not likely to have any unacceptable direct or indirect effects in terms of air and climatic factors.

16.5.8 Material Assets, Cultural Heritage and the Landscape

16.5.8.1 Material Assets (including resource use and waste generation)

Identification, Description and Assessment of Effects

Chapters 12 of the EIAR address Material Assets, and include information on traffic, transport, agricultural and non-agricultural property, and resources (both natural and others) such as energy and water. Material assets such as roads and traffic and built services are dealt with in the decision of 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 activities will not be significant. There are sufficient supplies of electricity and water to serve the requirements of the development. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on-site. The production of waste by the activities is assessed in the Waste Generation section of this report.

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

- Waste Generation;
- Energy Efficiency and Resource Use.

Material Assets Conclusions

I have examined all the information on material assets provided by the licensee, received through consultations, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and

through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activities is not likely to have any unacceptable direct or indirect effects in terms of Material Assets.

The planning authority has also identified, described and assessed the likely significant direct and indirect effects of the development on material assets. Their assessment concluded that "the proposed development would have a minor negative impact on natural and other resources".

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

16.5.8.2 Cultural Heritage

Identification, Description and Assessment of Effects

Chapter 11 of the EIAR 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 two buildings or features of architectural significance and no known archaeological features at or near the site of the installation. The installation is located 170 m to the west of Woodville House and 0.4 km west of Bessborough house. It is very difficult to envisage any pathway by which emissions from the operation of the activities 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

The Planning Authority has identified, described and assessed the likely significant direct and indirect effects of the development on cultural heritage. Their assessment concluded that "the proposed expansion of the existing facility will increase the footprint of development within the attendant grounds of Woodville House" and recommended an adequate buffer be maintained and screening used to mitigate the visual impact from Woodville House.

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

16.5.8.3 The Landscape

Identification, Description and Assessment of Effects

The potential direct and indirect effects on the landscape are described in Chapter 7 of the EIAR. 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, near a closed landfill. Emissions from the operation of the activities 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
The Planning Authority has identified, described and assessed the likely significant direct and indirect effects of the development on the landscape. Their assessment concluded that "it is anticipated that there would be a permanent slight to no significant impact upon the visual amenity at locations south of the site".

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

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

I have examined all the information on material assets, cultural heritage and the landscape provided by the 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 activities is not likely to have any unacceptable direct or indirect effects in terms of material assets, cultural heritage and the landscape.

16.5.9 Interactions Between Environmental Factors

Interactions of effects are considered in Chapter 16 of the EIAR. The most significant interactions between the factors as a result of the activities are summarised below.

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

Water, soil, and biodiversity
Accidental discharges of wash water or other substances to ground may directly and indirectly affect soil, groundwater quality, surface water quality downstream, aquatic habitats and aquatic flora and fauna. Indirect effects on soil, groundwater quality, surface water quality, habitats and flora and fauna may arise from landspreading wash water which arises from the activities. 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 population and human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and landscape, and the interaction of the likely effects identified throughout this report. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the RD. I am, therefore, satisfied that the operation of the activities is not likely to have any unacceptable direct or

indirect effects in terms of the interaction between the foregoing environmental factors.

16.5.10 Vulnerability of the Project to Risks of Major Accidents and/or Disasters

Chapter 4.5 of the EIAR describes the expected effects deriving from the vulnerability of the activities to risks of major accidents and/or disasters that are relevant to the activities.

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

The Seveso Directive[11] and Regulations are not applicable at the installation. The risks of accidents associated with the activities are dealt with in the 'Prevention of Accidents' and 'Cessation of Activity' sections of this report. The licensee assessed the vulnerability of the project and determined that due to the nature of the processes on-site, no significant risks occur and consequently, no specific mitigation measures have been proposed in relation to these effects.

Mitigation and Monitoring

There are no specific mitigation measures proposed in relation to major accidents and/or disasters at the installation.

Conclusions

I have examined all the information on major accidents and/or disasters 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 activities is not likely to have any unacceptable direct or indirect effects in terms of major accidents and/or disasters.

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 EIAR and supplementary information provided by the licensee, and the submission from the planning authority and third parties in the course of the application and when supplemented by my assessment as contained in this report, it is considered that the potential significant direct and indirect effects of the activities on the environment are as follows:

- Emissions to air;
- Noise emissions; and

[11] Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC.

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

Having regard to the effects (and interactions) identified, described and assessed throughout this report, I consider that the monitoring, mitigation and preventative measures proposed will enable the activities 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 €5,446, 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 Acts 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 Plan 2015 as amended. The RD gives effect to the requirements of the EPA Act, as amended and has regard to submissions made.

This report was prepared by Philip Stack. I recommend that a Proposed Determination be issued subject to the conditions and for the reasons as drafted in the RD.

Signed

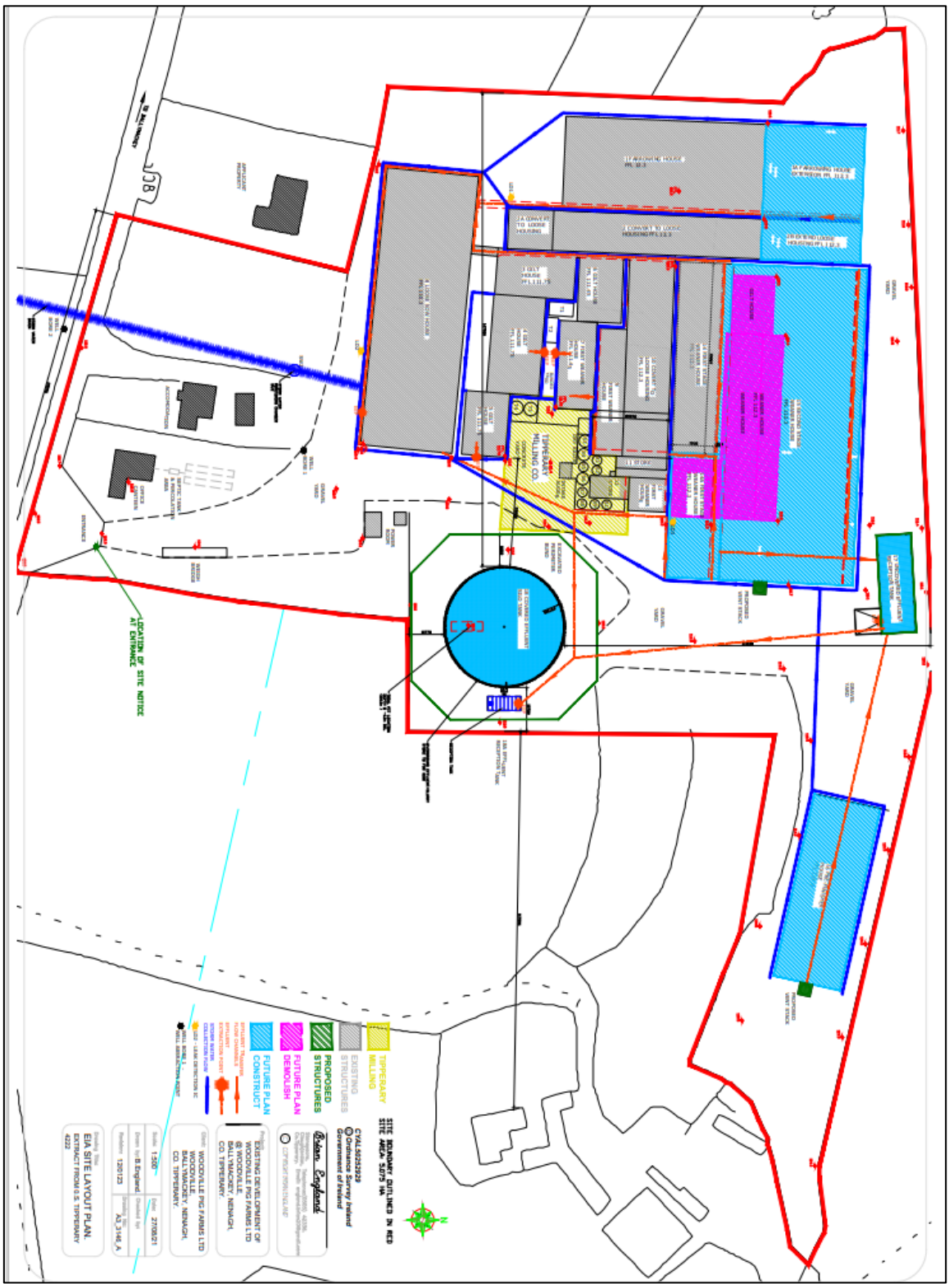
Philip Stack, ELP Inspector

Procedural Note

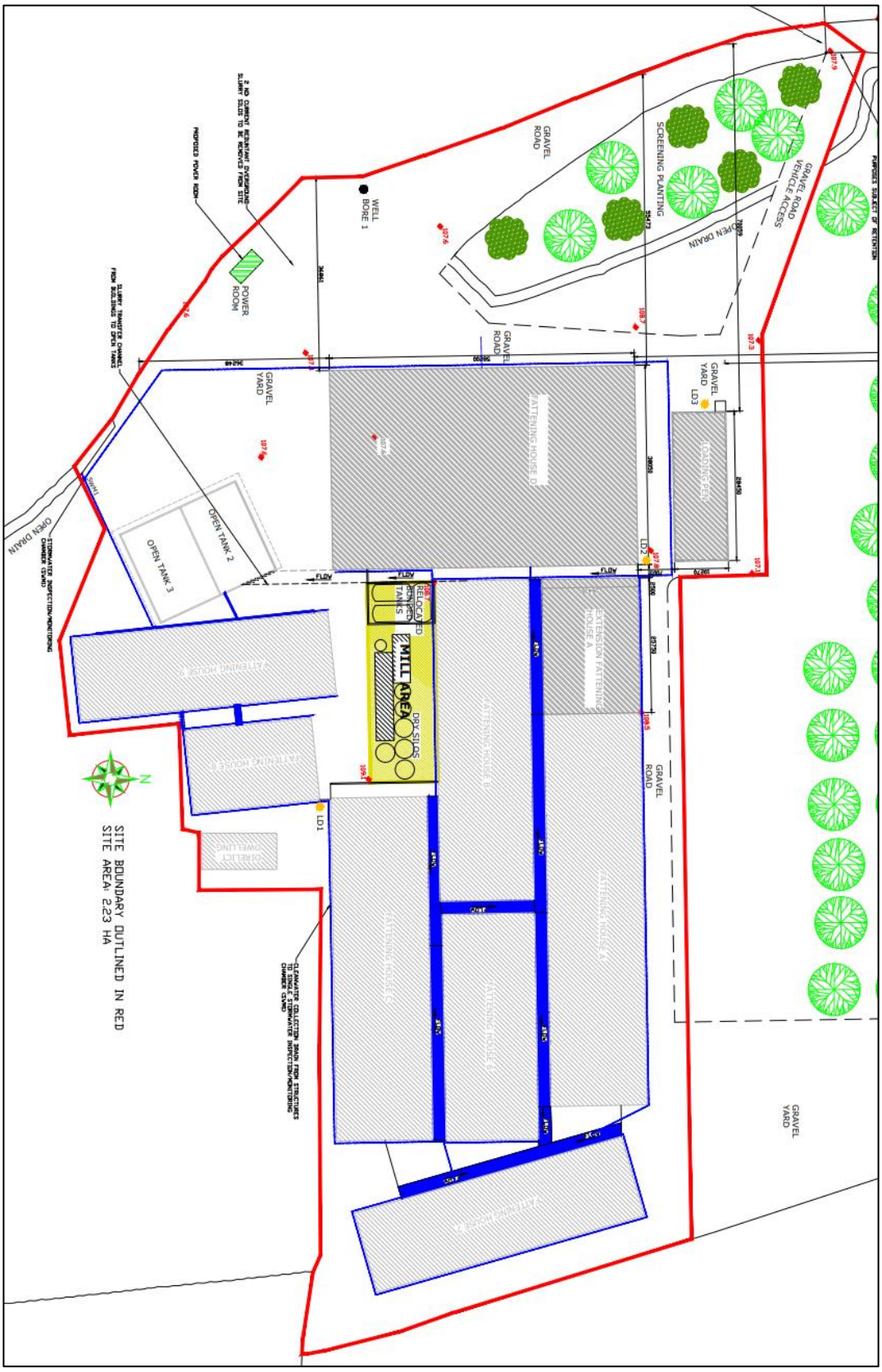
In the event that no objections are received to the Proposed Determination on the application, a licence will be granted in accordance with Section 87(4) of the Environmental Protection Agency Acts 1992 as amended, as soon as may be after the expiration of the appropriate period.

Appendices

Appendix 1: Drawings



Detail from the site plan of the Woodville breeding unit received by the Agency as part of the application on 24 January 2023.



Detail from the site plan for the Ballyknockane finishing unit received by the Agency as part of the application on 14 October 2022.

Appendix 2: AA table

Table A2.1: 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
002206	Scohaboy (Sopwell) Bog SAC	**Habitats** 7120 Degraded raised bogs still capable of natural regeneration	*As per NPWS (2023) Conservation Objectives: Scohaboy (Sopwell) Bog SAC 002206. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	*The site is located 9.6 km to the north of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000934	Kilduff-Devilsbit Mountain SAC	**Habitats** 4030 European dry heaths 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*	*As per NPWS (2018) Conservation Objectives: Kilduff, Devilsbit Mountain SAC 000934. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 11.5 km to the southeast from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004165	Slievefelim to Silvermines Mountains SPA	**Birds** A082 Hen Harrier (Circus cyaneus)	*NPWS (2022) Conservation Objectives: Slievefelim to Silvermines Mountains SPA 004165. Version 1.*	*The site is located 13.3 km from the installation.* *The project site is not located within the vicinity of any known breeding site for hen harrier at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	*from the project site will not cause an impact on the conservation objectives for this European Site.*
000585	Sharavogue Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion	*As per NPWS (201ϱ) Conservation Objectives: Sharavogue Bog SAC 000585. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 13.5 km northeast from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002241	Lough Derg - North-east Shore SAC	**Habitats** 5130 Juniperus communis formations on heaths or calcareous grasslands 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae* 7230 Alkaline fens 8240 Limestone pavements* 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* 91J0 Taxus baccata woods of the British Isles*	*As per NPWS (2019) Conservation Objectives: Lough Derg, North-east Shore SAC 002241. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 14.5 km west from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to any potential hydrological connectivity of the project site with the European site being in excess of 20 km.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004058	Lough Derg (Shannon) SPA	**Birds**	*As per NPWS (2022) Conservation*	*The site is located 15.3 km from the installation.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
		A017 Cormorant *(Phalacrocorax carbo)* A061 Tufted Duck *(Aythya fuligula)* A067 Goldeneye *(Bucephala clangula)* A193 Common Tern *(Sterna hirundo)* **Habitats** Wetlands	*objectives for Lough Derg (Shannon) SPA [004058]. Generic Version 9.0. Department of Housing, Local Government and Heritage.*	*I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest species for this European Site.* *I 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 20 km.* *The project site is not located within the vicinity of any known breeding site for cormorant, tufted duck, goldeneye, or common tern at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002124	Bolingbrook Hill SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*	*As per NPWS (2018) Conservation Objectives: Bolingbrook Hill SAC 002124. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 15.4 km south from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
001683	Liskeenan Fen SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain	*As per NPWS (2018) Conservation Objectives: Liskeenan Fen SAC 001683. Version 1. National Parks and Wildlife Service,*	*The site is located 16.0 km north from 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.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
		areas (and submountain areas, in Continental Europe)*	*Department of Culture, Heritage and the Gaeltacht.*	*I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000939	Silvermine Mountains SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*	*As per NPWS (2018) Conservation Objectives: Silvermine Mountains SAC 000939. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 16.6 km south from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002258	Silvermines Mountains West SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 6130 Calaminarian grasslands of the Violetalia calaminariae	*As per NPWS (2017) Conservation Objectives: Silvermines Mountains West SAC 002258. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 17.6 km south from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002165	Lower River Shannon SAC	**Habitats** 1110 Sandbanks which are slightly covered by sea water all the time 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1150 Coastal lagoons* 1160 Large shallow inlets and bays	*As per NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0. National Parks and Wildlife Service, Department of Arts,*	*The site is located 17.6 km west from 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.*

Site Code	Site Name	**Qualifying Interests** *(* denotes a priority habitat)*	**Conservation Objectives**	**Assessment**
		1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* **Species** 1349 Common Bottlenose Dolphin *(Tursiops truncatus)* 1355 Otter *(Lutra lutra)* 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 1106 Salmon *(Salmo salar)* 1095 Sea Lamprey *(Petromyzon marinus)* 1096 Brook Lamprey *(Lampetra planeri)* 1099 River Lamprey *(Lampetra fluviatilis)*	*Heritage and the Gaeltacht.*	*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 common bottlenose dolphin, otter, freshwater pearl mussel, salmon, sea lamprey, brook lamprey, or river lamprey at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities 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**
000647	Kilcarren-Firville Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion	*As per NPWS (201c) Conservation Objectives: Kilcarren-Firville Bog SAC 000647. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 18.4 km north of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002137	Lower River Suir SAC	**Habitats** 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* 91J0 Taxus baccata woods of the British Isles*	*As per NPWS (2017) Conservation Objectives: Lower River Suir SAC 002137. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*	*The site is located 19.2 km southeast from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *The project site is not located within the vicinity of any known breeding site for freshwater pearl mussel, white-clawed crayfish, salmon, sea lamprey, brook lamprey, river lamprey, twaite shad, otter at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities 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
		Species 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 1092 White-clawed Crayfish *(Austropotamobius pallipes)* 1106 Salmon *(Salmo salar)* 1095 Sea Lamprey *(Petromyzon marinus)* 1096 Brook Lamprey *(Lampetra planeri)* 1099 River Lamprey *(Lampetra fluviatilis)* 1103 Twaite Shad *(Alosa fallax fallax)* 1355 Otter *(Lutra lutra)*		
002207	Arragh More (Derrybreen) Bog SAC	**Habitats** 7120 Degraded raised bogs still capable of natural regeneration	*As per NPWS (2023) Conservation Objectives: Arragh More (Derrybreen) Bog SAC 002207. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	*The site is located 19.2 km from 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 or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
001197	Keeper Hill SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 7130 Blanket bogs (* if active bog)	*As per NPWS (2017) Conservation Objectives: Keeper Hill SAC 001197. Version 1. National Parks and Wildlife*	*The site is located 19.3 km from 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.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Service, Department of Culture, Heritage and the Gaeltacht.	*I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000641	Ballyduff/Clonfinane Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 91D0 Bog woodland*	*As per NPWS (201ǫ) Conservation Objectives: Ballyduff/Clonfinane Bog SAC 000641. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 20.5 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002147	Lisduff Fen SAC	**Habitats** 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens **Species** 1013 Geyer's Whorl Snail *(Vertigo geyeri)*	*As per NPWS (2019) Conservation Objectives: Lisduff Fen SAC 002147. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 21.1 km from 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 Geyer's whorl snail at this European site.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
				I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.
004160	Slieve Bloom Mountains SPA	**Birds** A082 Hen Harrier *(Circus cyaneus)*	*NPWS (2022) Conservation Objectives: Slieve Bloom Mountains SPA [004160]. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	*The site is located 22.3 km from the installation.* *The project site is not located within the vicinity of any known breeding site for hen harrier at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004168	Slieve Aughty Mountains SPA	**Birds** A082 Hen Harrier *(Circus cyaneus)* A098 Merlin *(Falco columbarius)*	*As per NPWS (2022) Conservation objectives for Slieve Aughty Mountains SPA [004168]. Generic Version 9.0. Department of Housing, Local Government and Heritage.*	*The site is located 22.7 km from 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 species for this European Site.* *The project site is not located within the vicinity of any known breeding site for hen harrier or merlin at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000216	River Shannon Callows SAC	**Habitats** 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	*As per NPWS (2022) Conservation Objectives: River Shannon Callows*	*The site is located 23.1 km from the installation.*

Site Code	Site Name	**Qualifying Interests** *(* denotes a priority habitat)*	**Conservation Objectives**	**Assessment**
		6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) 7230 Alkaline fens 8240 Limestone pavements* 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* **Species** 1355 Otter *(Lutra lutra)*	*SAC 000216. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	*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 otter at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004096	Middle Shannon Callows SPA	**Birds** A179 Black-headed Gull *(Chroicocephalus ridibundus)* A050 Wigeon *(Anas penelope)* A140 Golden Plover *(Pluvialis apricaria)* A038 Whooper Swan *(Cygnus cygnus)* A156 Black-tailed Godwit *(Limosa limosa)* A142 Lapwing *(Vanellus vanellus)* A122 Corncrake *(Crex crex)* **Habitats** Wetlands	*NPWS (2022) Conservation Objectives: Middle Shannon Callows SPA 004096. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.*	*The site is located 23.1 km from 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 black-headed gull, wigeon, golden plover, whooper swan, black-tailed godwit, lapwing or corncrake at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities 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
000248	Cloonmoylan Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 91D0 Bog woodland*	*As per NPWS (2016) Conservation Objectives: Cloonmoylan Bog SAC 000248. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 24.6 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002236	Island Fen SAC	**Habitats** 5130 Juniperus communis formations on heaths or calcareous grasslands 7230 Alkaline fens	*As per NPWS (2018) Conservation Objectives: Island Fen SAC 002236. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 24.7 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
002125	Anglesey Road SAC	**Habitats** 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	*As per NPWS (2021) Conservation Objectives: Anglesey Road SAC 002125. Version 1. National Parks and Wildlife*	*The site is located 25.7 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Service, Department of Housing, Local Government and Heritage.	*I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004137	Dovegrove Callows SPA	**Birds** A395 Greenland White-fronted Goose *(Anser albifrons flavirostris)*	*As per NPWS (2022) Conservation objectives for Dovegrove Callows SPA [004137]. Generic Version 9.0. Department of Housing, Local Government and Heritage.*	*The site is located 26.1 km from 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 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 Greenland white-fronted goose at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000231	Barroughter Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion	*As per NPWS (2015) Conservation Objectives: Barroughter Bog SAC 000231. Version 1. National Parks and Wildlife Service, Department of Arts,*	*The site is located 26.3 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Heritage and the Gaeltacht.	*I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004086	River Little Brosna Callows SPA	**Birds** A395 Greenland White-fronted Goose *(Anser albifrons flavirostris)* A052 Teal *(Anas crecca)* A050 Wigeon *(Anas penelope)* A056 Shoveler *(Anas clypeata)* A038 Whooper Swan *(Cygnus cygnus)* A142 Lapwing *(Vanellus vanellus)* A179 Black-headed Gull *(Chroicocephalus ridibundus)* A140 Golden Plover *(Pluvialis apricaria)* A156 Black-tailed Godwit *(Limosa limosa)* A054 Pintail *(Anas acuta)* **Habitats** Wetlands	*As per NPWS (2022) Conservation objectives for River Little Brosna Callows SPA [004086]. Generic Version 9.0. Department of Housing, Local Government and Heritage.*	*The site is located 26.4 km to the north of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats or species for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *The project site is not located within the vicinity of any known breeding site for Greenland white-fronted goose, teal, wigeon, shoveler, whooper swan, lapwing, black-headed gull, golden plover, black-tailed godwit, or pintail at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000412	Slieve Bloom Mountains SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 7130 Blanket bogs (* if active bog) 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*	*As per NPWS (2016) Conservation Objectives: Slieve Bloom Mountains SAC 000412. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional,*	*The site is located 26.5 km to the east of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *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
			Rural and Gaeltacht Affairs.	*I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
001313	Rosturra Wood SAC	**Habitats** 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	*As per NPWS (2018) Conservation Objectives: Rosturra Wood SAC 001313. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 27.5 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000261	Derrycrag Wood Nature Reserve SAC	**Habitats** 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	*As per NPWS (2018) Conservation Objectives: Derrycrag Wood Nature Reserve SAC 000261. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 27.5 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities 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
002353	Redwood Bog SAC	**Habitats** 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion	*As per NPWS (2015) Conservation Objectives: Redwood Bog SAC 002353. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 27.8 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000919	Ridge Road - SW of Rapemills SAC	**Habitats** 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	*As per NPWS (2018) Conservation Objectives: Ridge Road, SW of Rapemills SAC 000919. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 28.0 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000308	Loughatorick South Bog SAC	**Habitats** 7130 Blanket bogs (* if active bog)	*As per NPWS (2019) Conservation Objectives: Loughatorick South Bog SAC 000308. Version 1. National*	*The site is located 28.0 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.	*I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004233	River Nore SPA	**Birds** A229 Kingfisher *(Alcedo atthis)*	*As per NPWS (2022) Conservation objectives for River Nore SPA [004233]. Generic Version 9.0. Department of Housing, Local Government and Heritage.*	*The site is located 28.1 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 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 kingfisher at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
004103	All Saints Bog SPA	**Birds** A395 Greenland White-fronted Goose *(Anser albifrons flavirostris)*	*As per NPWS (2022) Conservation objectives for All Saints Bog SPA [004103]. Generic Version 9.0. Department of Housing, Local*	*The site is located 28.2 km to the north of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest 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.*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
			Government and Heritage.	*The project site is not located within the vicinity of any known breeding site for Greenland white-fronted goose at this European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000566	All Saints Bog and Esker SAC	**Habitats** 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 91D0 Bog woodland*	*As per NPWS (2016) Conservation Objectives: All Saints Bog and Esker SAC 000566. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*	*The site is located 28.2 km to the north of the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities from the project site will not cause an impact on the conservation objectives for this European Site.*
000319	Pollnaknockaun Wood Nature Reserve SAC	**Habitats** 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	*As per NPWS (2018) Conservation Objectives: Pollnaknockaun Wood Nature Reserve SAC 000319. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.*	*The site is located 28.5 km from the installation.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions from the project site will not cause an impact on the qualifying interest habitats for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities*

Site Code	Site Name	Qualifying Interests *(* denotes a priority habitat)*	Conservation Objectives	Assessment
				from the project site will not cause an impact on the conservation objectives for this European Site.
002312	Slieve Bernagh Bog SAC	**Habitats** 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 7130 Blanket bogs (* if active bog)	*As per NPWS (2016) Conservation Objectives: Slieve Bernagh Bog SAC 002312. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.*	*The site is located 28.9 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 for this European Site.* *I am satisfied beyond reasonable scientific doubt that storm water discharges will not cause an impact on this European Site due to the lack of hydrological connectivity of the project site with the European site.* *I am satisfied beyond reasonable scientific doubt that ammonia emissions or storm water discharges associated with the changes to the activities 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) & Birds Directive (79/409/EC)
Water Framework Directive [2000/60/EC]
Waste Framework Directive (2008/98/EC)
Air Quality Directives (2008/50/EC and 2004/107/EC)
Groundwater Directive (80/68/EEC) and 2006/118/EC
Environmental Liability Directive (2004/35/CE)
Regulation (EC) No 1069/2009, as amended (Animal By-products Regulation)
Nitrates Directive (91/676/ EEC)
Energy Efficiency Directive (2018/2002/EU)

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

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