# NON-TECHNICAL SUMMARY

**TULLEKA TRADING UNLIMITED,**
**GRAIGUE,**
**BALLINAKILL,**
**CO. LAOIS**

**2025**

**ATTACHMENT 1.2.**

**CURRENT LICENCE REF: P0710-03**

**Application Ref: LA015950**

## ***GENERAL***

This Non-technical Summary has been prepared on behalf of, and for the exclusive use of Tulleka Trading Unlimited, with respect to a Review of Licence Application to be made to the EPA, for the operation of the Industrial Emissions Licenced (Reg. No. P0710-03) pig rearing facility at Ballinakill, Portlaoise, Co. Laois (Eastings 248372 Northings 183209).

Planning permission has recently been granted by Laois County Council to Tulleka Trading Unlimited for an extension to the existing piggery which would allow for an increase in the live weight of pigs at sale, improvements to animal welfare and production efficiency to sustain the financial viability of this pig rearing enterprise at the farm site (Laois Co Co Planning File Reference No: 2460311). The current number of sow places at Tulleka Trading Unlimited exceed the threshold in Schedule 5, Part 1, 17(c) of the Planning & Development Regulations, 2001 (as amended) which requires a mandatory Environmental Impact Assessment Report (EIAR) to be completed for the development.

As an EIAR was required as part of the planning permission process, the site is also required to submit an application for the review of the sites IE licence.

The farm operates under the conditions of an Industrial Emissions License (Reg. No. P0710-03) issued by the Environmental Protection Agency on the 22nd of December 2011 and amended on 22nd of April 2013, 18th December 2013 and the 11th April 2024.

Mr. Paul Tully is licenced under activity 6.2(b) of the First Schedule of the EPA Act 1992, as amended, with intention of this application to request that Tulleka Trading Unlimited will be the Licensee.

6.2 The rearing of pigs in an installation where the capacity exceeds –
(b) 2,000 places for production pigs which are each over 30kg.

The activities currently at the site are farming activities appropriate to the area and are consistent with the development plan for County Laois. Given a successful application, the activities at the site would not change.

The main activities on the farm site are summarised as follows:

- Breeding and rearing of pigs;
- Delivery of feed to farm;
- Feeding and watering of pigs;
- Removal of pig slurry from slurry tanks periodically;
- Removal of fallen animals when required;
- Cleaning/disinfecting of pig pens between batches.

The principal input at the site would include pig feed, water, veterinary medicines and a modest amount of electricity for lighting and heating.

The main outputs at the site are finished pigs for sale and animal slurry (by-product). The primary wastes produced at the site include domestic refuse, recyclable packaging waste and fallen animal carcasses.

The current maximum animal numbers to be housed at the site are listed below in the following table.

| ANIMAL CLASS | EXISTING EPA LICENSED NO. OF PIGS [NOTE 1] |
|---|---|
| Production pigs (Growers and finishers) | 4,800 |
| Weaners | 4,300 |
| Sows | 650 |
| Maiden Gilts | 120 |

**Note 1**: A 20% increase in the number of production pigs (finishers) held on site, for a period not exceeding 2 weeks, is permissible. The frequency of such occurrences must be kept to a minimum. Any other variation in any of the animal numbers specified requires prior agreement from the Agency.

The proposed development would be constructed on an area which is currently improved grassland, which is currently used as agricultural grassland and is in the ownership of Tulleka Trading Unlimited. The construction phase of the proposed project would take an estimated 6 months.

The extension of the farm would allow for an increase in the live weight of pigs at sale and an increase in animal welfare and production efficiency to sustain the financial viability of this pig rearing enterprise.

The proposed new structures will allow greater scope to manage disease by increasing the accommodation on the site for separating piglet litters and providing additional welfare space for pigs with undocked tails, providing for best practice under Welfare of Farmed Animals Regulations (S.I. 311 of 2010).

Advances in the genetics of the Irish sow herd are responsible for increases in numbers of piglets born alive. However, there has been a concomitant increase in the number of small and weak piglets produced. These problems culminate in piglets dying at a younger age or reaching finishing weight at a slower rate.

The proposed development would modernise the design of farrowing places at the breeding site and improve animal welfare. In order to accommodate the larger piglet litters that genetic improvements in modern pig breeds have brought, larger farrowing pens are needed to provide sufficient space for the sow and the piglets.

The provision of separate fattening units for growing pigs would also improve animal welfare by improving survival weight for pigs at the site and therefore improve the efficiency of production at the site.

The increased space would allow for the improvement of time management of the farm by allowing a longer time for disinfection and drying of rooms between batches of pigs. By allowing more space for the production of heavier pigs that the market now seeks, the development would improve the economic output of the farm.

## ***SLURRY MANAGEMENT***

Slurry storage capacity at the site is compliant with the minimum 26 weeks' slurry storage capacity specified in S.I. 113 of 2022 with the proposed development adding further storage to the site.

Slurry from the site would be collected periodically at designated times by customers (i.e. local farmers) for the purpose of land spreading. All slurry collections from the site would be recorded in a log by the applicant, as per Nitrates Regulations (S.I. No. 113 of 2022).

All wash water produced on site (i.e. water from cleaning down pig pens between batches) is diverted to the nearest slurry tank where it is treated as slurry. There would be no discharge of any soiled water or any effluent from the site to any watercourse or to groundwater.

The existing and proposed slurry tanks conform to a recognised design standard for slurry storage, i.e. The Irish Department of Agriculture and Food Specifications S141 (Minimum Specification for New Pig Houses) April 2022.

Given that it is not proposed to increase the number of pigs at the farm, the storage capacity of current and proposed facilities would not be negatively affected by the proposed development and would be compliant with Article 10 of the European Union (Good Agricultural Practice for Protection of Waters) Regulations (S.I. No. 605 of 2017).

The applicant proposes to construct new slurry reception tanks beneath proposed sheds 14,15,16 and 17. The tanks would be constructed from reinforced mass concrete.

## ***WASTE MATERIAL***

All waste material would be stored as per the BREF Document on Emissions from Storage (July 2006) and removed from the site by a licensed waste contractor as necessary. Removal of waste materials would be documented as appropriate.

The proposed buildings would generate certain waste types during both the construction and operational phases. Waste would be segregated onsite and would be reused in infilling processes and landscaping where permitted and where possible, with remaining wastes sent for recycling or disposal as appropriate.

The operational phase would generate small amounts of typical domestic-type wastes (e.g. cardboard and plastic), animal tissue waste, fluorescent tubes and some veterinary waste which would be collected by the applicant and stored until removed by a suitably licenced waste contractor.

Tulleka Trading Unlimited would ensure that all waste hauliers which are contracted by the farm are suitably licenced to transport specific waste streams from the site and that all waste would be delivered to facilities which are licenced to accept the waste.

## ***PROVISION OF WATER***

Water needs for the piggery would continue to be provided through an existing groundwater well at the site and from the local group water scheme. Water is used to wash down the pig pens between batches and as a source of drinking water for the pigs.

The cleaning of the pig's pens between batches usually starts with a pre-soak with soapy water for one day prior to power washing the pens. This has been observed (Teagasc 2018) to be an effective cleaning technique that requires the least amount of water (recommended to be sprayed on the pens at c. 1.5L/m2).

Soiled water from the cleaning process between batches would be stored within the underground slurry tanks, where it would mix with the slurry and eventually be supplied to local farmers for their use on their farmland.

Broadly speaking, the drinking water requirements of pigs vary dependent on the size of the animal and / or the stage of a sows production cycle.

According to the latest available Annual Environmental Report (AER), in 2021 approximately 22,049$m^3$ of water was used on the farm.

It is not expected that water consumption on the farm would increase on site as a result of the proposed development.

## ***PROVISION OF ANIMAL FEED***

Representing 65% - 70% of the total costs of pig production, feed management is key to the pig production process, whilst providing the nutritional requirement for the growth of pigs at different stages.

As part of the proposed development, three new meal bins will be installed within the site north-west of proposed fattening house 14. These meal bins will be approximately 4.0m wide, 4.0m long and 11.2m high.

The applicant uses low protein diets to feed the pigs. Low protein diets have been shown to reduce GHG emission from pigs by at least 30%.

## ***ELECTRICITY AND HEATING***

The sites electricity is currently supplied by Eirgrid and the proposed new buildings would be wired into the existing infrastructure and would also be supplied by Eirgrid. A back-up silent diesel generator is located on the site.

Optimising energy input in pig farming is vital in order to reduce production costs, maintain financial viability and gain a marketing edge on competitors. Energy costs always require a significant part of the running cost of a pig farm.

According to the 2021 Annual Environmental Report submitted by Tulleka Trading Uunlimited, the site electricity use for 2020 was 489,268 kWh.
The amount of energy used would be minimised by high insulation standards, regular maintenance and minimal wastage. Efficient fan selection, good design of inlets, outlets and system cleaning are the key points to minimising energy use on a pig farm.

Fluorescent tube lighting is currently used in the existing buildings on site. Lighting in the proposed building would be fluorescent or light emitting diodes (LEDs), a less energy intensive and longer-lived technology. The Applicant has recently installed 100kVa of solar panels which will generate 22% of the total annual electricity requirement of this pig farm. This will help reduce the Carbon footprint of the production process of this farm and improve its sustainability credentials.

All current buildings at the site are insulated to a high standard. The proposed buildings would also be insulated to current best practice standards. The existing buildings are heated by an electric system and the proposed buildings will also utilise this method of heating.

Farrowing House: - Piglets are born into an environment of between 20 and 24 °C but require a temperature of > 30 °C. This is supplied by an electric heating system. Weaker pigs may receive extra and beneficial heat from an infrared lamp, hung over them.

1st Stage Weaner House: - These rooms are to be artificially heated with electric heaters. The floors are slatted with plastic slats. The air temperature and freshness are climatically controlled by sensors and computers.

Finisher/Gilt/Sow Houses: - These houses will receive no artificial heating. All new houses are to be totally slatted. At the finished stage of production, the optimum temperature required for finisher pig welfare is 18 to 20°C. The combination of insulated buildings and the pigs' own body heat are sufficient to maintain this temperature, so no heating system is required.

## ***EMISSION & MONITORING POINTS***

The only emission from the site is clean rainwater from roofs and small sections of concreted clean yard areas. Storm water captured by this system is collected and directed to stone soakaways in the eastern boundary (SA2) and south-west (SA1) of the site. Stormwater is also directed to a soil percolation area adjacent to northwestern corner (SW1) of the site.

There is one surface water monitoring point at the farm; SW1 is an inspection sump before rainwater is discharged to a percolation area, infiltrating to ground. Under Schedule C.2.3. of the sites EPA IE licence (P0710-03), these surface water monitoring sites are visually inspected weekly and sampled quarterly for COD.

Wash waters and soiled water from dirty yard areas is directed to the closest slurry tank.

There would be no alterations to the existing emissions from the farm. Rainwater from roofs of the proposed new pig houses would connect to the existing surface-water drainage network, discharging to the soakaway on the eastern boundary of the existing network (SA2). This water would be uncontaminated and therefore should have no impact on surface or groundwater.

The onsite borewell is also monitored (GW1). Under Schedule C.6.1. of the site's EPA IE licence (P0710-03), GW1 is monitored annually for Nitrate, Total ammonia, Faecal coliforms, and Total coliforms.

There are no point emissions to atmosphere from the site, aside from the rarely used back-up diesel generator.

## ***AIR / ODOUR / CLIMATE***

The main potential sources of air pollutants from the operation of the proposed development would be the livestock digestive processes and pig slurry. Emissions from digestive processes and slurry include primarily ammonia and methane. Such air emissions would be concomitant with piggery odours.

Airborne dust associated with the animals is not expected to be an issue due to the modern design of the proposed buildings.

The proposed development would result in the generation of greenhouse gasses (GHG), in particular carbon dioxide, methane and ammonia. GHG's emitted from the site would have no significant effect upon the local climate, however, would contribute to the overall generation of GHG's from agriculture in Ireland.

Air emissions generated at the proposed development would be typical of the industry and would be anticipated to have no significant to slight air quality impacts in the regional context. Air quality in the vicinity of the development would be expected to continue to be "Good", as rated by the EPA's Air Quality Index for Health and would remain dominated by general traffic and agricultural sources within the region.

With regard to the potential for odour nuisance effects, the closest sensitive receptor is 82 m northwest of the site boundary and 95 m northwest of the closest pig housing unit at the site. Since the applicant commenced pig farming at the site in the 1973 and since receipt of an EPA IPPC/IE licence in 2011, the site has not received any complaints with regard to odours.

The high standard of design of the proposed pig houses, coupled with continued good housekeeping practices currently in place at the site, would serve to ensure the effective control of odour emissions and mitigate the risk of environmental impact and nuisance to sensitive receptors from odours associated with the site.

Mitigation measures for air emission and odour control are outlined in **Section 5.7** of the EIAR and include use of low protein diets, high standard slurry management, appropriate stocking density, appropriate timing/weather for slurry removal and use of a high-tech computerised ventilation system. An Ammonia Impact Assessment and an Odour Impact Assessment have been completed for the site and is included as **EIAR_Attachment 5.1** and **5.2** of the EIAR.

It is considered that the proposed development would not have a significant impact upon air quality, climate or odour nuisance.

## ***NOISE***

A Noise Impact Assessment has been prepared in support of the EIAR. The survey identified the main noise sensitive locations (NSLs) and assessed the potential impact of the proposed development at these locations, in accordance with the methodologies prescribed in ISO 9613-2:1996 "*Attenuation of Sound during Propagation Outdoors*" and in BS 4142:2014 "*Methods for Rating and Assessing Industrial and Commercial Sound*".

The baseline noise assessment conducted for the proposed development provides a predictive analysis of the impact of the construction and operation of the proposed development on NSLs to determine the need for any mitigation measures.

Peak source noise levels would occur during short periods during the initial construction phase, such as excavation/site clearance activities. It was determined that the proposed development would have no significant impact on the closest noise sensitive locations during the construction phase. Predicted construction noise levels would be in compliance with NRA guidance for noise during construction.

During the operational phase, there would be no expected increase in vehicles and no expected alteration of operations as a result of the proposed extension of the farm, excluding the location and additional ventilation from the new buildings.

The maximum noise from onsite ventilation fans would be predicted to occur predominantly during the daytime periods of the warmest summer days. It is likely that ventilation fans would only be operating at maximum from May to September, for a number of days during these months and only for short periods of these days. The maximum potential impact of noise from ventilation has been based upon all fans working at maximum power. Therefore, the predicted maximum noise levels may be seen as a worst-case scenario for ventilation noise during the operation of the site.

Worst case scenario noise levels at the closest sensitive locations have been predicted to be below the sites existing EPA license daytime limit of 55dB.

Due to the low predicted resultant noise levels and the infrequency of occurrence, it is predicted that maximum fan noise would have a slight to no significant impact upon noise sensitive locations. During the normal operation of the ventilation system, it is predicted that there would no significant impact upon noise sensitive locations.

## ***VISUAL AMENITY & LANDSCAPE CHARACTER***

The proposed development site is located within a rural agricultural landscape, dominated by pasture fields of varying sizes, bordered by hedgerows and treelines. Residential development in the area is sparse and mostly found next to local roads. Residential property is generally dispersed along local roads. A number of one-off residences and farmyard complexes exist in the area and are the dominantly visible man-made structures in the landscape. Large farmyard complexes are common in the area and are generally composed of a barn, lean-to or A-shaped sheds.

According to the Landscape Character Assessment of County Laois, the site is in a landscape character area described as “Hills and Upland”. The area is described as a prominent feature of the county, offering panoramic views of the lowland landscapes of Laois and adjacent counties from the top of hills. The hills also act as orienting features by virtue of landmarks at their summits as well as their topography. The hills also act as orienting features by virtue of landmarks at their summits as well as their topography.

The proposed development is well screened from the north, east and west by folds in the land and the treelines and hedgerows which border most fields and roads. However, the existing site is a notable feature in the landscape at viewpoints to the south.

However, the gaps in the hedgerows and treelines that boarder the proposed development would be provided with supplementary planting, offering better screening. The remaining visible features would be the feed bins, rooftops of buildings and the associated exhaust vents.

There would be a minor to no significant and temporary visual impact from construction works as, by its nature, works would mainly occur at a low level and construction is not expected to continue for more than six months. The main visible impact would be predominantly construction vehicles and plant machinery, such as excavators and delivery vehicles.

The only part of the development which would be expected to result in any visual impacts is the proposed farrowing house. The proposed farrowing house would not be expected to exceed the height of the existing and proposed feed silo’s, the tallest existing structures currently at the site.

Therefore, it is anticipated that there would be a permanent slight to no significant impact upon the visual amenity at locations immediately to the south of the site on the L7794 road or from viewpoints situated at a higher elevation.

The recommendation of a green finish on the buildings would ensure that the development would blend in well with surrounding landscape features and elements. The recommended planting of trees to the south of the existing buildings would also merge the existing and proposed structures with the treelined character of the area.

A review of the County Development Plan shows that the site is not located within a primary or secondary amenity area, nor does the site impinge upon views from amenity areas or listed views.

According to the Laois Landscape Character Assessment, Laois uplands are a landscape area with medium sensitivity. The proposed development is of an agricultural nature and would be incorporated within an existing farming enterprise. Given the nature, location and design features of the proposed buildings, it is considered that the proposed development would have a non-significant Minor-Negligible effect on the level of landscape and visual impact in the area.

***BIODIVERSITY***

*Designated Sites*

A Natura Impact Statement has been prepared for the proposed development (Document Ref. PE_NIS_ 10049). The European sites considered to be within the potential zone of influence of the proposed development were the River Barrow and River Nore SAC (Site Code: 002162), the Lisbigney Bog SAC (Site Code: 000869), the River Nore SPA (Site Code: 004233) and the Coan Bogs NHA (Site Code: 002382), due to potential hydrological connectivity and a potential deterioration in air quality.

As discussed in detail within the Natura Impact Statement and as summarised in **Sections 8.5.2** and **8.5.3** of the EIAR, the proposed development would not be considered to result in any adverse impact to the protected habitats or species of the designated sites due to habitat loss or fragmentation, reduction in species density or diversity, introduction of invasive species or potential impacts upon water quality.

The proposed development does not directly impinge on any part of a European site, and it is not considered that the proposed development site would contain the habitats or species for which the sites have been designated for.

In the absence of any invasive flora species of concern onsite and given that no topsoil or subsoil would be required to be imported onsite, the development would have no significant impact upon designated sites due to invasive species.

There would be no significant potential disturbance upon fauna due to noise from the farm and there would be no alteration to the existing noise environment as a result of the proposed development. A noise management plan would be in place for the farm to ensure minimal noise pollution outside of the red line boundary.

The potential disturbance on protected habitats due to dust during the construction phase would not be considered significant, given the transient nature of construction works, the construction timeframe (6 months) and given the distance to Lisbigney Bog SAC and River Nore SPA.

As there will be no increase in animal stocking numbers as per the proposed development, it is not anticipated that there will be an increase in ammonia and nitrogen emissions arising from activities carried out at the farm that could impact ecologically sensitive locations upon completion of the development. There would be no significant additional impact to the River Barrow and River Nore SAC, Lisbigney Bog SAC or the River Nore SPA as a result of nitrogen deposition from the farm. Furthermore, the proposed development has incorporated design measures which limit the potential for the generation of ammonia emissions to atmosphere. These design measures include the depth of manure holding pits, ventilation design and surface area of manure exposed beneath the slats.

The proposed development is located within the Nore catchment (15) and the Nore_SC_060 sub catchment. and is hydrologically connected to the River Barrow and River Nore SAC (Site Code: 002162), the Lisbigney Bog SAC (Site Code: 000869), the River Nore SPA (Site Code: 004233) and the Coan Bogs NHA (Site Code: 002382).

The proposed development would not be considered to impact upon the SACs, SPA or NHA sites due to deleterious effects on water quality during construction works, owing to the duration of construction works and given that the proposed footprint is not located within the immediate vicinity of any watercourses. Further details are provided in the Natura Impact Statement and **Section 8.5.2** of the EIAR, "*Designated Sites – SAC and SPA Sites*".

It is not anticipated that the operational phase has the potential to impact upon the SAC or SPA sites due to deleterious effects on water quality. Stormwater from the site comprises of clean rainwater run-off from the roofs and and small sections of concreted clean yard areas. Stormwater from the proposed structures would connect to this existing surface-water network, discharging to the soakaway on the eastern boundary of the existing network (SA2). There are no process effluent emissions from the site, with all manure stored within underground slurry tanks, awaiting collection for landspreading activities.

It is not anticipated that the proposed development would have a significant impact on water quality of protected sites due to the landspreading of wash waters. The spreading of manure would be undertaken in accordance with the setback distances from surface waterbodies and abstraction points specified in the Nitrates Regulations (S.I. No. 605 of 2017).

One Natura Heritage Area (NHA) site, Coan Bogs NHA (Site Code: 002382), is considered to be within the potential zone of influence of the proposed development site. The proposed development does not directly impinge on this NHA site. It is not considered that the proposed development would have the potential to impact upon the NHA due to a potential deterioration in water quality, given that the NHA site is located within a separate sub catchment of the Nore Catchment and therefore is not considered to be a direct hydrological connection to the development.

*Land Use and Habitat Loss / Fragmentation*

The proposed development would result in a change of habitat use at the proposed development footprint, resulting in the loss of the existing habitat, improved agricultural grassland (GA1). The loss of GA1 habitat would not be considered significant, given that this habitat is modified, species poor and of low ecological value. There will be no loss of the boundary hedgerows or treelines, and the recommendation of supplemental native planting within gaps in the existing hedgerows and treelines would result in the protection of these habitats and would have a positive impact upon habitats and flora.

Where possible, scrub and tree removal would not take place during the bird nesting season (1st of March – 31st of August). However, it may be necessary to undertake some scrub / tree removal works during the bird nesting season. In such instances, a suitably qualified ecologist would be engaged to carry out inspections for the presence of breeding birds prior to any clearance works taking place and recommendations would be followed (for example the establishment of a buffer zone around an active nest).

The majority of the existing habitats are considered as having negligible to low bat roost potential and the treelines to the west and east are considered as having low to moderate bat roost potential. Supplemental planting, comprising native species along treelines and hedgerows along the site's boundaries, is recommended, which would provide additional wildlife corridors and foraging and commuting habitat.

No rare plant species or protected flora under the Flora (Protection) Order 2015, were recorded within the proposed development area. Therefore, the proposed development would not be considered to impact upon any rare or protected flora species.

*Invasive Flora of Concern*

No invasive flora species of concern were recorded during the onsite ecological assessment. The potential risk of introducing invasive species during the construction phase would be considered low, given that excavated soils would be re-used in site levelling and landscaping works, therefore, no importation of topsoil or subsoil would be required as part of the development works.

*Disturbance*

Artificial lighting has the potential to negatively impact upon bat species. During the construction phase, works are not anticipated to be conducted outside of normal working hours, which would considerably reduce the potential impacts upon bat species. Measures with regards artificial lighting, as outlined in **Section 8.6.1** of the EIAR, would be required to be implemented to reduce the potential impact of light pollution

It is not envisaged that fauna would be significantly impacted upon by the development due to noise. Construction noise would not be considered to pose a significant risk to fauna owing to the transient nature of works, the construction timeframe and given that all vehicles where possible would be equipped with mufflers to suppress noise, as is standard practice.

*Air Emissions*

Dust emissions may arise during construction activities, in particular during earth-moving works, which may have the potential to impact upon photosynthesis, respiration and transpiration processes of flora due to the blocking of leaf stomata. However, given the transient nature of construction works, the construction timeframe (6 months) and standard working practices including dust control, the potential impact to flora would not be considered significant.

As discussed in the "*Designated Sites*" section above, as per the proposed development, there will be no increase in animal stocking numbers. Therefore, it is not anticipated that there will be an increase in ammonia and nitrogen emissions arising from activities carried out at the farm that could impact ecologically sensitive locations upon completion of the development. There would be no significant additional impact to the River Barrow and River Nore SAC, Lisbigney Bog SAC or the River Nore SPA as a result of nitrogen deposition from the farm. Furthermore, the proposed development has incorporated design measures which limit the potential for the generation of ammonia emissions to atmosphere. These design measures include the depth of manure holding pits, ventilation design and surface area of manure exposed beneath the slats.
.

*Water Quality and Biodiversity*

As discussed in **Section 8.5.2** and **Section 8.5.3** of the EIAR, the potential for the development to impact upon water quality during either the construction or operational phase and thus aquatic biodiversity, is reduced, given the absence of any watercourses within the immediate vicinity of the development site (with the nearest watercourse, the Owveg River located approximately 394m from the proposed development).

No significant impact on water quality would take place due to drainage from the site. Stormwater from the site comprises of clean rainwater run-off from the roofs and clean hardstanding areas. Stormwater would connect with the stormwater drainage network and all existing and proposed stormwater discharges are via soakaway or soil percolation areas.

The proposed development contains no proposal for the landspreading of pig slurry, thus it is not anticipated a potential impact upon the biodiversity of designated sites through the landspreading of pig manure as organic fertiliser, either through pollution of waterbodies or the enrichment of natural vegetation. However, manure is and would continue to be, collected by registered contractors / farmers, for application to lands held by third parties in the area. The transport and spreading of the manure would be managed in compliance with the Nitrates Regulations (S.I. No. 113 of 2022).

No adverse potential impacts upon water quality would be anticipated due to accidents and potential spills and leaks, given the absence of watercourses within the vicinity of the site, the low volume of stored chemicals onsite and given that chemicals and oils are stored upon bunds, in accordance with the site's Industrial Emissions (IE) Licence.

***SOILS, GEOLOGY AND HYDROLOGY***

GSI online mapping indicates that the soil underlying the site is classed as hallow well drained mineral mainly basic soil. This soil type is the predominant soil type in the surrounding area. The subsoils beneath the proposed site are mapped as limestone sands and gravels (Carboniferous) and are classified as glaciofluvial sands and gravels.

GSI and OS maps indicate the site of the proposed development is located on bedrock classified as Killeshin Siltstone Formation. The Killeshin Siltstone Formation comprises grey argillaceous siltstones or silty mudstones, with lesser amounts of sandstone and shale. The siltstones are poorly bedded with an irregular conchoidal fracture.

The site is in a high-risk groundwater vulnerability area. The vulnerability of the groundwater within the site is interpreted as being high due to the high permeability of the gravel subsoil.

GSIs aquifer classification map indicates that the site of the proposed development is situated on a bedrock aquifer, which is classified as a Poor Aquifer, which is generally unproductive except for local zones (Pl). The proposed site is located on a regionally important gravel aquifer.

Due to the topography of the area, groundwater would be expected to flow east toward the Owveg River, while deeper, regional groundwater flow would be expected to flow south to a more downstream section of the Owveg River.

During the construction phase, the main potential impacts upon soils would be through soil removal as part of excavation works, soil compaction arising from the use of construction plant and hydrocarbon contamination from leaks and spills, sediment laden run-off, and spillage of concrete. Mitigation measures would include the re-use of excavated soils for reinstatement and landscaping works where possible, maintenance of plant machinery and equipment and the appropriate storage of potentially polluting materials.

During the construction phase, the main potential impacts to surface and groundwater would be the potential for hydrocarbon spillage and uncured concrete spillage. Mitigation measures would include the appropriate handling and storage of hydrocarbons, daily inspections of construction plant, good housekeeping practices, supervision of uncured concrete works and the provision of spill kits.

During the operational phase of the development, the main potential impacts to soils, groundwater and surface waters would include the storage of slurry and accidental leakage or spillage of hydrocarbons. Mitigation measures would include measures to assist in minimising the volume and nutrient load of slurry generated and stored such as, feeding pigs a low protein diet, maintenance of drinkers to prevent leaks, separation of 'clean' runoff and soiled wash waters.

Chemical and fuels would continue to be required to be adequately bunded as part of ongoing management of the site under the existing IE licence. It is also a requirement that spill clean-up materials would be available onsite in the event of a spill.

The use of agricultural slurry as a fertiliser is regulated under *Good Agricultural Practice for the Protection of Waters Regulations 2017 (Nitrates Regulations)*, which controls the landspreading of organic fertilisers in order to protect groundwater, surface waters and drinking waters.

Given good working practices and appropriate mitigation measures, it is considered that the proposed development would have no significant impact upon soils, geology or hydrology.

## ***RELEVANT GUIDANCE DOCUMENTS***

COMMISSION IMPLEMENTING DECISION (EU) 2017/302

of 15 February 2017

establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the intensive rearing of poultry or pigs

## ***MAJOR ACCIDENTS***

The EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2006 **do not apply** to the activity.

## ***SECTION 86A(6) DEROGATION***

A derogation under Section 86A(6) **is not being sought**.