

Inspector's Report 310586-21

Development	Demolition of existing pig houses, associated buildings & slurry stores & construction of a 960 no. sow integrated pig farm.
Location	Carrigroe Pig Farm, Carrigroe, Ballynamult, Co. Waterford.
Planning Authority	Waterford City & County Council
Planning Authority Reg. Ref.	20/394
Applicant(s)	Fenor Pig Farms Limited
Type of Application	Permission
Planning Authority Decision	Grant Permission
Type of Appeal	Third Party v. Decision
Appellant(s)	(1) Concerned Residents of Touraneena & Ballinamult,
	(2) Noel & Kathleen Reynolds
	(3) Wild Ireland Defense CLG
Observer(s)	Noel & Pauline Drohan; An Taisce

Date of Site Inspection

10<sup>th</sup> September 2021

Inspector

Louise Treacy

# 1.0 Site Location and Description

- 1.1. The subject site has a stated area of 4.83 ha and is located at Carrigroe, Ballynamult, Co. Waterford. The site is located c. 5.2 km south-west of Ballymacarbry, c. 1 km north-west of Ballynamult and c. 1.2 km east of the Tipperary County boundary. The lands in the vicinity of the subject site are predominantly rural and agricultural in nature, with pockets of commercial forestry and sporadic one-off rural dwellings. The western slopes of the Monavullagh Mountains are located approx. 4.5 km to the east and the eastern slopes of the Knockmealdown Mountains are located approx. 4 km to the west.
- 1.2. The site is accessed via regional road R671 which runs in a generally north-south direction to the east of the site entrance. The site currently accommodates Carrigroe Pig Farm. The existing pig farm buildings are set back from the public road by approx. 315 m and are largely screened by mature coniferous trees in views of the site from the public road. The site entrance slopes downwards from the R671, with the internal access road being characterised by compacted stone and extending approx. 380 m towards the main pig farm buildings. The Drumgorey Stream runs in a north-south direction under the site access road, close to its junction with the R671.
- 1.3. The existing buildings, which primarily comprise concrete structures with prefabricated sheds, have a stated floor area of 6,722 m<sup>2</sup> and are generally clustered in the central/rear portion of the site. The buildings and associated concrete yard are in poor condition. Two lagoons and a detached, vacant bungalow are located between the pig farm buildings and the site entrance on the northern side of the internal access road. The rear portion of the site is undeveloped, with mature coniferous trees screening views into the site from the adjoining agricultural lands to the rear/north-west.
- 1.4. A spring is located outside of the site boundary approx. 160 m to the north-west and is accessed through the forested area beyond the rear site boundary. This spring is piped to a storage tank and pump house and provides the water supply for the existing piggery. The spring was covered over with plastic sheeting at the time of the inspection. An unnamed stream comprising overflow from the spring extends in a south-easterly direction through the adjoining lands towards the Drumgorey Stream.
- 1.5. An agricultural barn and associated farmyard adjoin the south-western site boundary, with the remaining adjoining lands to the north, south and west being

characterised by agricultural land and forestry plantations. The lands on the eastern side of the R671 are also characterised by agricultural land and forestry, with sporadic rural dwellings, including 2 no. detached properties which are located directly opposite the site entrance.

1.6. Caherbrack Pig Farm is located approx. 1.25 km to the south-west of the subject site and is under the same ownership as the current appeal site.

# 2.0 **Proposed Development**

- 2.1. The proposed development comprises the demolition of the existing pig houses, associated buildings and slurry stores and the construction of a 960 no. sow integrated pig farm (birth to slaughter) consisting of 7 no. pig houses, associated slurry tanks, a covered pig loading race, a feed mixing shed, a feed mill and workshop building, an electricity control building, a building with office canteen, showers and WC, a waste water treatment system, and associated site works. The total footprint of the proposed development is 18,356 m<sup>2</sup>.
- 2.2. The site of the proposed development has an IPPC licence ref. no. P0414-01.
- 2.3. The 4 no. finishing houses and 1 no. weaner house extend across the entire rear portion of the site, with widths of approx. 127 m. The main feed room, dry sow house, farrowing house and a covered slurry store are proposed in the central area of the site, adjacent to the finishing/weaner houses. The proposed staff facilities building and staff car parking (10 no. spaces) are also proposed in the central area of the site, opposite the existing farm buildings which adjoin the south-western site boundary. The covered main slurry storage tank (52.749 m x 33.75 m) and attenuation tank (45.395 m x 12.5 m) are located between the proposed staff building and the existing unoccupied bungalow towards the south-western portion of the site.

# 3.0 Planning Authority Decision

## 3.1. Decision

3.1.1. Notification of the Decision to Grant Planning Permission subject to 14 no. conditions issued on 25<sup>th</sup> May 2021.

- 3.1.2. Condition no. 3 (c) requires the operator to carry out: (i) annual analysis of on-site groundwater boreholes for E. coli, conductivity, ammonia, orthophosphate and nitrates, (ii) stormwater to be monitored quarterly for ammonia, orthophosphate, nitrates, suspended solids and COD, (iii) Drumgorey Stream to be monitored quarterly at 5 sites for ammonia, nitrates and orthophosphate, (iv) annual biological surveys to be carried out at 7 sites surveyed in the EIAR, which shall be monitored quarterly for ammonia, nitrates and orthophosphate.
- 3.1.3. Condition no. 5 (a) requires the development to be operated in strict accordance with the requirements of the European Union (Good Agricultural Practice for the Protection of Water) Regulations, 2017.
- 3.1.4. Condition no. 10 requires that all oxidisable and galvanised surfaces of the development shall be painted a dark green matt colour or similar and maintained in perpetuity.
- 3.1.5. Condition no. 13 (a) requires the developer to engage the services of a suitably qualified archaeologist to carry out archaeological monitoring of demolition, site clearance and ground works and a programme of pre-development testing in the areas of proposed groundworks.
- 3.1.6. Condition no. 14 requires upgrade works to the existing site access including alteration of the on-site approach/dwell area to be fully completed prior to all other construction and demolition works being carried out on site.
- 3.1.7. All other conditions are generally standard in nature.

## 3.2. Planning Authority Reports

## 3.2.1. Planning Reports (13<sup>th</sup> August 2020 and 24<sup>th</sup> May 2021)

3.2.2. Following their initial assessment of the planning application, Waterford City and County Council's Planning Officer considered that further information was required in relation to 14 no. items as summarised below:

(1) A revised NIS which assesses the potential of the proposed development, including spread-lands, to impact on the conservation objective targets as set out for

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both the River Blackwater and Lower River Suir SAC. The revised NIS should include a map of the spread-lands and detail mitigation measures where risk to water quality is identified in Finisk 020 or Nier River and apply the appropriate test on determining potential for adverse impacts on the integrity of the Natura 2000 network.

(2) A full quantification of the areas of land required for land spread relative to the areas of land stated to be available and a robust management plan to ensure a supply of appropriate and available lands for disposal of effluent by land spreading.

(3) Total traffic movements during construction and operation, nature of all vehicle types and associated tonnages, timescale of construction works and associated traffic data, traffic associated with stocking and establishment of the facility and for 1 no. full operational year, traffic management proposals to ensure no conflicts of traffic movements.

(4) Serious concerns regarding the existing gradient of the access road where it joins the R671, the unbound nature of the surface and the resultant difference in levels between the access road and the metalled surface of the public road and poor sightlines and traffic safety concerns associated with the access.

(5) Demonstration that the required sightlines can be achieved at the site access.

(6) Proposals for the provision of a bound surface such as tarmacadam or concrete on the site access road or a substantial section of same leading from the public road.

(7) Concerns regarding the increase in ground water abstraction at the subject site and the potential impact on private and public potable ground sourced water supplies. The applicant is requested to demonstrate that the underlying local aquifer and existing water supplies will not be negatively impacted upon through the creation of a zone of depression or dewatering of wells at any time of the year.

(8) The planning status of the bore hole water supply on the site.

(9) Proposals for dust, odour and noise monitoring.

(10) Revised photomontages and screening treatments.

(11) The EIAR does not include robust discussion around BATNEEC. The applicant is requested to fully consider the potential for further mitigation having regard to potential mechanical solutions.

(12) Clarification of the methodology used to undertake the site suitability assessment for the proposed packaged waste-water treatment system with soil polishing filter.

(13) The intended use of the existing vacant dwelling on the site and details of the wastewater treatment system serving same.

(14) Clarification of the EIAR statement that the pig unit is accessed from a local primary road and not the R671.

- 3.2.3. The applicant submitted a response to the Request for Further Information on 19<sup>th</sup> March 2021 which proposes to scale back the development by excluding the proposed dry sow house, farrowing house and farrowing house feed room, resulting in a revised total floor area of 13,113 m<sup>2</sup>. The revised development will accommodate, inter alia, a pig finishing unit for 6,200 finishers and 3,580 weaners. The Planning Authority considered that the applicant's response contained Significant Further Information and the proposed development was readvertised to the public.
- 3.2.4. The applicant's response can be summarised as follows:
- 3.2.5. Item No. 1: An addendum to the NIS has been prepared which replaces section 4.4 (Stage 4: In-Combination Effects of Plans & Projects) and Section 4.6 (Stage 4.6: Conclusion) of the original NIS. It is concluded that the proposed development will not cause adverse impacts to the following Natura 2000 sites on foot of the proposed mitigation measures: Blackwater River (Cork/Waterford), Lower River Suir, Nier Valley Woodlands, Comeragh Mountains and Dungarvan Harbour.
- 3.2.6. **Item No. 2:** A response has been submitted which addresses potential impacts on water quality, impacts on water quality due to cumulative nutrient burden on soils, land-spreading in poor conditions and inadequate assimilation capacity, intensive dairy farming and slurry management issues on receiving farms and nutrient management for the land-spread areas. No significant issues are identified.
- 3.2.7. **Item No. 3:** The submitted response document sets out the anticipated hourly, daily, monthly and annual traffic during the construction (12-18 months) and operational phases of the proposed development. Traffic management proposals are identified to minimise impacts on the local road network.

- 3.2.8. **Item No. 4:** It is proposed to carry out works to the entrance approach at the junction with the R671 to improve the standard and safety of the site access. These works are illustrated on Drawing No. J684-PL01-001 which accompanies the response.
- 3.2.9. **Item No. 5**: The proposed sightlines at the site access are illustrated on Drawing No. J684-PL01-001. Email correspondence from the Roads Department of Waterford City and County Council has been provided which confirms that this department would look favourably on the proposed access improvements on the basis that a significant increase in traffic movements will not arise.
- 3.2.10. **Item No. 6:** It is proposed to provide a concrete surface for the entirety of the access road.
- 3.2.11. **Item No. 7:** A Groundwater Abstraction Impact Assessment has been submitted. The assessment confirms that significant impacts will not arise to private or public potable ground sourced water supplies on foot of the proposed development. It is also confirmed that the underlying local aquifer and existing water supplies will not be negatively impacted.
- 3.2.12. **Item No. 8**: The applicant submits that the trial bore well is not an unauthorised development. It is stated that the well was used to investigate the feasibility of a back-up water supply to the existing spring source and to investigate the ground water conditions under the site. The well was never used as a water source, is now covered over and not in use.
- 3.2.13. **Item No. 9**: It is submitted that a **dust** monitoring programme will be undertaken during the construction phase of the proposed development. PM monitoring will be undertaken, if required. It is not proposed to monitor dust or PM during the operational phase of the development. In the event planning permission is granted, it is noted that the pig farm must apply and operate under the conditions of an EPA licence, which may include conditions relating to the monitoring of dust and PM emissions.
- 3.2.14. During the construction phase, **noise** impacts will not be significant at sensitive receptors due to the separation distances arising. A Noise Management Programme will be implemented to control noise at the construction site. The applicant will commit to conditions for noise monitoring which may be required by the EPA and commits to implementing the noise monitoring programme detailed in Appendix 2 of the response document.

- 3.2.15. The requirement for **odour** monitoring will not arise during the construction stage of the proposed development. The applicant will commit to conditions for odour monitoring which may be required by the EPA and commits to implementing the odour management plan identified in Appendix 4, Vol. 3 of the EIAR.
- 3.2.16. Item No. 10: Proposals for landscape screening have been prepared by Anthony Johns Landscape Design Ltd (Drawing nos. FENP/LS/001, FENP/SEC/002, FENP/SEC/003 and FENP/MON/004 refer). It is proposed to plant specimen native trees along the north-western and north-eastern boundaries to offer long term screening of the proposed development. Trees will be planted at 4 m centres to ensure solid screening. The submitted drawings illustrate the projected tree growth at 3-5 years and 7-10 years. A photomontage image is also provided which illustrates the projected growth at 7-10 years.
- 3.2.17. **Item No. 11**: A total of 30 no. Best Available Technologies (BAT) have been identified and the technologies which will be implemented on the site have been confirmed.
- 3.2.18. **Item No. 12**: It is submitted that the Site Suitability Assessment for On-Site Wastewater Management was carried out in accordance with the EPA Code of Practice but that an incorrect assessment date was entered in section 3.2 of the Site Characterisation Report. An amended Site Suitability Assessment Report has been provided.
- 3.2.19. **Item No. 13:** The existing dwelling on the site is proposed to be retained in its current state of disrepair. No improvement works are proposed to the dwelling or the wastewater treatment system.
- 3.2.20. **Item No**. **14:** The applicant has confirmed that the entrance to the pig unit is located on the R671.
- 3.2.21. The applicant's Further Information response is accompanied by an EIAR addendum which updates the environmental impact assessment to reflect the scaled back development (response item no. 15).

## 3.2.22. Other Technical Reports

3.2.23. Heritage Officer (11<sup>th</sup> August 2020): States that: (i) there may be potential for deterioration of water quality within the catchment of the River Finisk and River Blackwater; (ii) the in-combination effects of run-off from slurry on spread lands is the key potential risk to water quality and associated qualifying interest species in the River Blackwater SAC; (iii) the Finisk confluence with the River Blackwater is downstream of the Pearl Mussel catchment and can be screened out; (iv) the NIS needs to clearly identify if and how the in-combination effects will not cause adverse impacts to the integrity of the SAC and the specific conservation targets for the relevant qualifying interest species that occur in the River Finisk and River Blackwater downstream of the site.

- 3.2.24. Recommends that the NIS be revised to assess the potential for the proposed development to impact on the conservation objective targets for the River Blackwater. A map of the spread lands should be included and detailed mitigation measures where risk to water quality is identified in Finisk 020. The appropriate test for determining the potential for adverse impacts on the integrity of the Natura 2000 network should be applied.
- 3.2.25. Water Services (12<sup>th</sup> August 2020 and 21<sup>st</sup> May 2021): States that: (i) the proposed demolition and construction works mainly pose a threat to surface waters and proper management will minimise the risk; (ii) the risk to ground waters, public and private water supplies is mainly from the spread lands, with no information provided in relation to same notes that other legislation deals with this element of the development.
- 3.2.26. Appropriate conditions recommended following the applicant's Further Information submission (report of 21<sup>st</sup> May 2021 refers). The findings of the applicant's report on the adequacy of the proposed water source for the development are accepted.
- 3.2.27. Roads Department Comeragh Area (24<sup>th</sup> May 2021): Notes that the applicant has engaged with the Department prior to the submission of the Further Information response and are satisfied that their concerns have been addressed.
- 3.2.28. Environmental Services (21<sup>st</sup> May 2021): Notes that (i) Notwithstanding that the pig slurry will most likely be spread using splash plate techniques, it is considered that the proposed development will not result in a significant increase in the amount of air emissions from the development, which will be short-term and limited so as not to cause serious nuisance; (ii) the noise impacts of the development will not be significantly different to the existing operation; (iii) the proposed development will reduce dust impacts compared to the existing operation.
  - 3.3. Prescribed Bodies

- 3.3.1. An Taisce (5<sup>th</sup> May 2011): Submits that: (1) the Good Agricultural Practice Regulations are insufficient for protecting water quality and that the NIS conclusions of no adverse impacts to the Blackwater River SAC with the implementation of mitigation measures is unsubstantiated; (2) the ammonia emissions of the proposed development should be assessed against Ireland's legal obligations under the National Emissions Ceiling Directive; (3) the cumulative impacts of the proposal, particularly with regard to water quality and ammonia air pollution, should be assessed in combination with the concurrent piggery application at Caherbrack, and at the wider catchment level.
- 3.3.2. Inland Fisheries Ireland (6<sup>th</sup> May 2021): Submits that: (1) it is important that adequate pollution prevention measures are undertaken during site demolition/construction activity, (2) particular care should be given to soils excavated in the environs of the slurry storage facilities, (3) the applicant should determine soil nutrient levels in the critical areas in the immediate environs of buildings and slurry storage structures to be demolished to avoid nutrient release from the underlying soils and the potential pollution of surface waters, (4) the attenuation of surface drainage systems within the proposed development would be beneficial to the receiving environment due to its proximity and elevation from nearby receiving surface waters.
- 3.3.3. EPA (7<sup>th</sup> April 2021 and 6<sup>th</sup> September 2021): States that the existing development has an IPPC licence and that any licence review application will be subject to EIA with respect to matters that come under the functions of the EPA. Should the Agency decide to grant a licence, it will incorporate conditions that will ensure that appropriate national and EU standards are applied and that BAT will be used in the carrying out of the activities. Notes that the recipients of organic fertiliser are responsible for the management and use of same in accordance with the European Union (Good Agricultural Practice for Protection of Waters) Regulations, 2017 as amended by the Animal By-Products Regulations.

## 3.4. Third Party Observations

3.4.1. Third party observations were made on the application by: (1) Noel & Kathleen Reynolds, (2) Mrs. N. Windsor Smith, (3) Patrick, Bernie, Shane & Anthony Organ, (4) Hilda Nicell, (5) Julia & Alan Kiely, (6) Hannah & Pat O'Connor, (7) Aoife Fitzpatrick, (8) Dr. Kate Fitzpatrick, (9) Gerard & Carmel Myles, (10) Seamus &

Breda Skehan, (11) Aisling Reynolds, (12) Robert & Catherine Walton, (13) Pat & Pauline Ahearne, (14) Siamsa Sliabh gCua Development Committee, (15) Áine & Kevin Hickey, (16) Dr. Sean Fitzpatrick and Sarah Fitzpatrick, (17) Owen Reddy, (18) Liam Power, (19) John & Fionnuala McGrath, (20) Trevor Power, (21) Joseph & Margaret Coffey, (22) Eleanor and Sinead McGrath, (23) Keith May & Suzanne Baumann, (24) Imelda Guiry, (25) Amanda Walsh, (26) Bridget O'Donnell, (27) Eamonn & Úna Lonergan, (28) Darren Golding, (29) Úna Mulcahy, (30) Patsy & Phyllis McGrath, (31) Patrick Raymond McGrath, (32) Kay Tobin, (33) James Lonergan, (34) Alana Coyne, (35) Sophie Coyne, (36) Majella Geary, (37) Michael & Mary O'Sullivan, Noel and Pauline Drohan.

- 3.4.2. The issues which are raised can be summarised as follows: (1) odour, noise and gas impacts, (2) health impacts, (3) environmental impacts, (4) impact on Natura 2000 sites (Blackwater River SAC), (5) dangerous site access, (6) water contamination, (7) negative impacts on property values, residential amenity, tourism and community facilities, (8) traffic impacts, (9) visual impacts, (10) lack of proper public consultation, (11) flawed EIAR, (12) non-compliance with development plan provisions for the rural community, (13) impacts on freshwater ecosystems and high groundwater vulnerability, (14) no air filtration system proposed, (15) excessive scale of development, (16) negative impact on other farming activities in the local area, (17) concerns regarding slurry storage, volume of spreading and extent of available spread lands, (18) animal welfare concerns, (19) loss of employment, (20) no benefits to local community, (21) dewatering of local wells, (22) concerns regarding nitrates and phosphorous emissions.
- 3.4.3. Following the applicant's Further Information submission, third party observations were made by: (1) Eamonn & Úna Lonergan, (2) Beverly Bradnick, (3) Tony Moloney, (4) Dr. Sean Fitzpatrick, (5) Siamsa Sliabh gCua Development Group, (6) Hilda Nicell, (7) Amanda Walsh, (8) Darren Golding, (9) Majella Geary, (10) Patrick Walsh, (11) Peter Sweetman & Associates on behalf of Wild Ireland Defense CLG, (12) Ruth & Paul Deegan, (13) Aisling Reynolds, (14) Noel & Kathleen Reynolds, (15) Liza Foley, (16) Bozena & Ray Moore, (17) Liam Whelan, (18) Anita McGrath, (19) Tom Phelan, (20) Noel & Bridget O'Malley, (21) Celine Quinn, (22) Gerard & Ann Commins, (23) Brendan & Tara McGourty, (24) Liam Power, (25) Sinead & Michael Desmond, (26) Eithne & John O'Shea, (27) Anita Buckley, (28) Trevor Power, (29) Sarah & Andy Meehan, (30) Pat & Hannah O'Connor, (31) Breda

Skehan, (32) Noel & Pauline Drohan, (33) Anthony, Bernie & Shane Organ, (34)
Marc Ó Cathasaigh, (35) Rachel Windsor Smith, (36) John J. Cahill, (37) Mairead
McCabe, (38) Joseph & Margaret Coffey, (39) Suzanne Baumann, (40) TJ & Sinead
de Faoite, (41) Gerard and Carmel Myles, (42) Niall Power & Clare Power, (43)
Concerned residents of Touraneena & Ballinamult, (44) Pauline Cliff Aherne &
Patrick Aherne, (45) Gillian Hennessy, (46) James Lonergan, (47) Laura Johnson,
(46) Dr. Kathleen Fitzpatrick & Declan Fitzpatrick, (48) Claudia Bauch, (49) Bridget
O'Donnell, (50) Patrick Raymond McGrath, (51) John & Fionnuala McGrath, (52)
Clodagh Beresford Dunne, (53) Patsy & Phyllis McGrath, (54) Kenneth & Kat Walsh,
(55) Sarah McCabe, (56) Nicola Cunniffe, (57) Mike & Josephine Fraher, (58) Ber
Burke, (59) Dr. Kate Fitzpatrick, (60) Kay Tobin, (61) Laura Tobin, (62) Cycling
Ireland c/o Scott Graham, (63) Aoife Fitzpatrick, (64) Conor King, (65) JP & Claire
Fitzpatrick, (66) Eleanor & Sinead McGrath, (67) Una Mulcahy, (68) Mary F. Ryan,
(69) Brian Windsor, (70) Mrs. B. Windsor, (71) C.F. Bryan, and (72) Mrs. N. Windsor
Smith.

- 3.4.4. Representations were also made by the following: (1) Cllr. Seanie Power, (2) Cllr. John O'Leary, (3) Cllr. Conor D. McGuinness, (4) Cllr. John Pratt, (5) Cllr. Thomas Phelan, and (6) Cllr. James Tobin.
- 3.4.5. The new issues which have been raised can be summarised as follows: (1) a list of the farms which will accept slurry has not been provided, (2) construction noise and dust impacts, (3) the use of BATNEEC should be required, (4) errors/inaccuracies in the submitted calculations which seek to downplay the impact of the development, (5) negative impact on Caherbrack House (a Protected Structure) and Caherbrack Bridge, (6) NIS does not consider slurry spreading, (7) no proposals for storage of carcass waste, (8) no information on vermin/rodent control, (9) the submitted further information does not address the serious concerns of the local community, (10) traffic count undertaken during Covid-19 lockdown and does not represent normal traffic flows on R671, (11) birds on Drumgorey stream susceptible to pollution, (12) the removal of asbestos and other hazardous materials from the site must be undertaken by a licensed contractor, (13) project splitting, (14) more frequent environmental modelling required, (15) wastewater treatment system must comply with EPA Code of Practice, (16) project splitting, (17) in-combination impacts of the applicant's concurrent application for a pig farm development at Caherbrack must be considered, (18) use of out-of-date animal data, (19) the development does not

comply with the development plan and TII road design standards, (20) the EIAR does not include site-specific, up-to-date water quality data for ground and surface waters, (21) impacts on freshwater pearl mussel, (22) climate change impacts should be considered.

3.4.6. The submission from the Concerned Residents of Touraneena & Ballinamult includes a Hydrology & Hydrogeology report as prepared by Parkmore Environmental Services and a Roads, Traffic and Access Appraisal as prepared by Malachy Walsh and Partners Engineering and Environmental Consultants. The contents of these reports have been reviewed and noted.

# 4.0 **Planning History**

- 4.1. **Planning Authority Reg. Ref. 98/18**: Retention planning permission sought for retention of pig houses, planning permission for the completion of same and retention planning permission for mill store.
- 4.2. Details of the planning authority's decision on this application are not available.
- 4.3. Other Relevant Planning History for the Area
- 4.3.1. **Planning Authority Reg. Ref. 20/393; ABP Ref. 310588-21**: Planning permission sought for the demolition of existing pig houses, associated buildings and slurry stores and the construction of 3 no. fattening pig houses, 1 no. weaner pig houses, associated slurry tanks, a covered pig loading race, a feed mixing shed, a feed silo shed with equipment rooms, office, canteen, showers and WC, a wastewater treatment system and associated site works.
- 4.3.2. Waterford City and County Council issued Notification of the Decision to Grant Permission for the proposed development subject to 14 no. conditions on 26<sup>th</sup> May 2021.
- 4.3.3. Third party appeals have been lodged in relation to this decision, which is a concurrent case before the Board.

# 5.0 Policy and Context

5.1. FoodWise 2025

5.1.1. Launched in 2015 and succeeding Food Harvest 2020, FoodWise 2025 sets out a 10-year plan for the agri-food sector. It identifies growth opportunities for the Irish agri-food and fisheries sector that are expected to arise due to significant population increases and greater access to international markets. It identifies the following growth projections for the industry over the next ten years including: 85% increase in exports to €19 billion; 70% increase in value added to €13 billion; 65% increase in primary production to €10 billion, and the creation of 23,000 additional jobs all along the supply chain from producer level to high-end value-added product development.

#### 5.2. Climate Action Plan, 2019

5.2.1. The Climate Action Plan sets out a framework to guide the country towards decarbonisation. The long-term challenge for the agricultural sector is to meet the national policy objective of an approach to carbon neutrality which does not compromise the capacity for sustainable food production. Throughout Europe, reducing greenhouse gas emissions in agriculture has proved difficult, with only a 1% reduction since 2005. Irish agricultural emissions fell during the period 2005 – 2011, but have since risen sharply, driven by larger herds and rising milk production. A number of measures are identified to start decarbonising the Irish agricultural sector, including, inter alia, through reducing farm emissions.

## 5.3. National Planning Framework (NPF), 2018

5.3.1. The NPF acknowledges the importance of ongoing investment in the agri-food sector, to underpin its sustainable growth, as set out in Food Wise 2025. The increase in agri-food exports, value added, primary production and creation of additional jobs are all encouraged. The NPF states that "the agri-food sector continues to play an integral part in Irelands economy and is our largest indigenous industry, contributing 173,400 direct jobs and generating 10.4% of merchandise exports in 2016". Agriculture has traditionally been the most important contributor to rural economies and it remains important as a significant source of income and both direct and indirect employment. It is noted that agriculture must adapt to the challenges posed by modernisation, restructuring, market development and the increasing importance of environmental issues.

5.3.2. Policy objectives relevant to the proposed development include:

**National Policy Objective 23**: Facilitate the development of the rural economy through supporting a sustainable and economically efficient agricultural and food sector, together with forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage which are vital to rural tourism.

## 5.4. Regional Spatial and Economic Strategy (RSES) for the Southern Region, 2020

- 5.4.1. The RSES provides a long-term regional level strategic planning and economic framework in support of the implementation of the National Planning Framework for the future physical, economic and social development of the Southern Region and includes Metropolitan Area Strategic Plans (MASPs) to guide the future development of the Region's three main cities and metropolitan areas Cork, Limerick-Shannon and Waterford.
- 5.4.2. It is noted that agriculture is both highly exposed and is a significant contributor of climate change. There is a need to align to the country's climate targets and to future proof the agricultural economy in the process.
- 5.4.3. **Regional Policy Objective 94:** It is an objective to support initiatives that advance an approach to achieve carbon neutrality for agriculture and land-use that does not compromise sustainable food production through:
  - Programmes including the Green LowCarbon Agri-environment Scheme (GLAS) and the Beef Data and Genomics Programme (BDGP) under Ireland's Rural Development Programme 2014-20 and future iterations.
  - (ii) Support for the Departments of Agriculture, Food and the Marine, and Communications Climate Action and Environment to enhance the competitiveness of the agriculture sector with an urgent need for mitigation to reduce GHGs as well as adaptation measures. The All-of-Government Climate Action Plan and Ag-Climatise will guide action in this area.

## 5.5. Waterford County Development Plan 2011-2017 (as extended)

## 5.6. Land Use Zoning

5.6.1. All land outside of designated settlements is regarded as being subject to land use zoning "A-Agriculture" which has the objective "to provide for the development of

agriculture and to protect and improve rural amenity". Agricultural structures are permissible under this zoning objective.

## 5.7. Agricultural Development

- 5.7.1. The Planning Authority will support and facilitate sustainable agricultural developments and improvements where the developments are considered in relation to their likely impact on the environment, landscape, character and amenity of the surrounding area.
- 5.7.2. The Council will normally permit development proposals for agricultural developments where: (1) they are appropriate in nature and scale to the area in which they are located, (2) the proposal is necessary for the efficient use of the agricultural holding or enterprise, (3) where the proposal involves the erection of buildings, there are no suitable redundant buildings on the farm holding which could accommodate the development, (4) the development is not visually intrusive in the local landscape, and, where the proposal is for a new building(s) and there are no suitable redundant building; and (5) the proposal demonstrates that it has taken into account traffic, environmental and amenity considerations and is in accordance with the policies, requirements and guidance contained in the development plan.

## 5.8. Landscape

- 5.8.1. The subject site is located in a "sensitive" landscape area with reference to Scenic Landscape Evaluation map contained in Appendix 9 of the plan. This includes areas which are open and exposed with sparse or low growing vegetation cover which is insufficient to provide screening. Even if planting is introduced, the exposed nature of these areas will not support any significant tall vegetation. Due to this, any development would be visible over a wide area. The exceptions to this include broadleaved, mixed forest and transitional woodland scrub areas which do support tall vegetation with potential to screen development. These categories are sensitive due to their natural character and their longevity in the landscape; any loss to their structure (such as tree felling or clearance) would have a visual impact over a wide area.
- 5.8.2. Applications for development in these areas must demonstrate an awareness of these inherent limitations by having a very high standard of site selection, siting

layout, selection of materials and finishes. Applications in these areas may also be required to consider ecological, archaeological, water quality and noise factors insofar as it affects the preservation of the amenities of the area.

## 5.9. Water

- 5.9.1. **Policy ENV 6:** It is a policy of the Council to preserve and protect groundwater and surface water quality taking into consideration the Groundwater Protection Scheme prior to approving development. Proposals for new development shall comply with the relevant EPA Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (2009).
- 5.9.2. **Policy ENV 7:** It is a policy of the Council to comply with the objectives, policies and Programme of Measures of the Water Framework Directive and the South-Eastern and South-Western River Basin District Management Plans.

## 5.10. Development Management Standards

- 5.10.1. **Site Access**: The R671 adjacent to the site access has an operating speed of 80 km, resulting in a sightline requirement of 160 m.
- 5.10.2. **Agricultural Development**: In visually sensitive areas, agricultural buildings will be required to be sited as unobtrusively as possible, with the use of appropriate materials and colours. The use of dark colours (greens, reds, greys) is most suitable for farm buildings. The planting of shelter belts will be required to screen large scale sheds and structures.
- 5.10.3. Any proposals for farmyard development must make provision for runoff and where there is a danger of groundwater or surface water contamination, the Council will require appropriate treatment of runoff.

## 5.11. Draft Waterford City and County Development Plan 2022-2028

- 5.11.1. The draft Waterford City and County Development Plan 2022-2028 has been prepared and the final plan is expected to be adopted during summer 2022.
- 5.11.2. **Policy Objective ECON 12**: To facilitate farm or rural resource related enterprises and diversification, including food production and processing on farm/ agricultural holdings, mineral and aggregate extractive industry, aquaculture and marine, and proposals which support rural tourism initiatives which are developed upon rural enterprise, social enterprise, natural/ cultural heritage assets and outdoor recreational activities, subject to the capacity of the site and the location to facilitate

the proposal. Subject to environmental policies and the development management standards of this Development Plan, the nature and scale of any proposed development will be assessed having regard to a number of factors, including nature and scale of the existing operation, building, or tourist attractions, source of material (where appropriate), traffic movements, water and wastewater requirements, capacity to reuse existing and redundant buildings, and likely impacts on amenity and the environment and the Natura 2000 Network.

- 5.11.3. **Policy Objective CA 01**: To support and implement the policies of the Waterford Climate Adaptation Strategy in collaboration with Waterford Climate Action Team the Climate Action Regional Office (CARO), and review/replace the strategy pursuant to the provisions of the Climate Action and Low Carbon Development Act.
- 5.11.4. Policy Objective WQ 01: We will contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, the coastline, groundwater and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations 2010 (as amended) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development.
- 5.11.5. Landscape Policy Objective L02: We will protect the landscape and natural assets of the County by ensuring that proposed developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area and ensuring that such proposals are not unduly visually obtrusive in the landscape, in particular, in or adjacent to the uplands, along river corridors, coastal or other distinctive landscape character units.
- 5.11.6. The site is located in a landscape area of increased sensitivity with reference to Fig.10 (Waterford Landscape and Seascape Character Assessment).

## 5.12. Development Management Standards

5.12.1. **Rural Development**: In visually sensitive areas, the Planning Authority will require that:

(i) Agricultural buildings/ structures be sited as unobtrusively as possible, and the design, scale, siting and layout of agricultural buildings should respect, and where possible, enhance the rural environment,

(ii) Appropriate materials and colours are used. The use of dark colours, notably, dark green/reds and greys are most suitable for farm buildings.

(iii) The planting of shelter belts will be required to screen large scale sheds and structures.

(iv) Buildings should generally be located a minimum of 100metres from the nearest dwelling other than the applicants dwelling.

(v) The Council will generally seek to cluster agricultural buildings and structures together, and siting to assimilate effectively into the landscape.

(vi) Any proposals for farmyard developments must make provision for runoff, and where there is a danger of groundwater or surface water contamination, the Council will require appropriate treatment of runoff. The Council shall have regard to the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009 (S.I 101 of 2009) in relation to acceptable agricultural practice standards.

## 5.13. Natural Heritage Designations

- 5.13.1. The following designated sites are proximate to the application site:
  - Blackwater River (Cork/Waterford) SAC (site code: 002170) located approx.
     2 km to the south-west of the subject site at its closest point. Blackwater River (Cork/Waterford) SAC is connected to Blackwater Estuary SPA (site code: 004028) at its southern-most extent, approx. 25 km to the south-west of the subject site.

- Lower River Suir SAC (site code: 002137) located approx. 4 km to the north of the subject site at its closest point.
- Nier Valley Woodlands SAC (site code: 000668) located approx. 4 km to the north-east of the subject site at its closest point.
- Comeragh Mountains SAC (site code: 001952) located approx. 6.6 km to the east of the subject site at its closest point.
- Dungarvan Harbour SPA (site code: 004032) is located approx. 15 km to the south-east of the application site.

## 5.14. EIA Screening

5.14.1. An EIAR was submitted with the application as it exceeds the threshold specified under the Planning and Development Regulations, 2001 (as amended), Schedule 5, Part 1, Class 17 (b) which sets out the categories and scale of development that require mandatory EIA as follows: Installations for the intensive rearing of poultry or pigs with more than 3,000 places for production pigs (over 30 kilograms)".

# 6.0 The Appeal

## 6.1. Grounds of Appeal

- 6.1.1. A third-party appeal has been lodged against the Notification of the Decision to Grant Permission by: (1) Environmental Management Services on behalf of the Concerned Residents of Touraneena & Ballinamult, (2) Noel & Kathleen Reynolds, and (3) Peter Sweetman & Associates on behalf of Wild Ireland Defense CLG.
- 6.1.2. The grounds of the appeal by Environmental Management Services on behalf of the Concerned Residents of Touraneena & Ballinamult can be summarised as follows:
  - The applicant states that total CO<sub>2</sub> emissions from both pig farms would decrease by 8% and total NH<sub>3</sub> emissions would decrease by 10%. There is major concern that these figures cannot be substantiated.
  - The applicant's right of way to the spring on adjoining lands is undocumented.

- An expert assessment of the risks to groundwater reveals significant groundwater vulnerability and a site suitability assessment which did not provide the necessary results with confidence.
- The site suitability assessment shows the groundwater vulnerability of the site varies between high and extreme, and it is likely that proposed wastewater discharge would be directly to bedrock, with contamination of the underlying aquifer.
- If An Bord Pleanála takes the scaled back development (as proposed at Further Information stage) into consideration, it will enable the applicant to engage in project splitting.
- The Board should take account of the relationship between the proposed pig farms at Carrigroe and Caherbrack, as they are considered by the EPA as a single licensable development. Therefore, the cumulative impacts of both developments, including demolition, land spreading, traffic and impacts on Natura 2000 sites, must be considered.
- Water quality in the Drumgorey Stream has been adversely impacted by the operation of the existing pig farms, with elevated ammonia levels and excessive eutrophication downstream.
- The applicant did not respond adequately or comprehensively to the Planning Authority's Request for Further Information and the Planning Authority did not request the applicant to consider the in-combination effects of both pig farm developments. The applicant's response to the problem of slurry spreading is significantly inadequate.
- The Board must consider the adverse impacts of the increased road traffic which would be generated by both pig farms, including that arising from land spreading, together with increased risk of road traffic accidents and adverse effects on other road users.
- No proposals for dust, odour or noise monitoring have been provided.
- Concerns that proposed water quality sampling downstream of the site would only be required for a 3-year period. All environmental monitoring should be undertaken at least quarterly.

- No water quality assessments of the Drumgorey Stream undertaken by the County Council or the EPA and the surface water quality data provided by the applicant does not reflect historical pig numbers kept on the farm.
- The use of BATNEEC should be required in the combined pig farm development.
- The proposed development would adversely impact on the vision of sustainable rural communities and rural tourism presented in the County Development Plan and would have a significant negative impact on residential amenity.
- The proposed development would be inconsistent with development plan policies which promote walking and cycling in rural areas. The proposed pig farm exits onto the "Sean Kelly Legacy" cycling route.
- The requirement for slurry to be spread in accordance with the Good Agricultural Practice Regulations, 2017 is inadequate to protect the aquatic environment, the atmosphere or human health. Adequate protection of groundwater and surface water quality cannot be ensured by a condition attached to a grant of permission.
- The land-spreading of pig slurry is an intrinsic part of the project for which planning permission is being sought and was not considered in the applicant's NIS. The proposed land spreading areas are hydrologically connected to Natura 2000 sites.
- The NIS failed to obtain up-to-date scientific information on which to base its conclusion that the existing pig farm has had no significant impact on baseline water quality.
- A list of farmers who have committed to take slurry from the proposed pig farm(s) has not been provided and the map of available slurry spread-lands is inaccurate and cannot be relied upon.
- It is estimated that 45% of the land spread area identified in the planning application would be suitable for spreading slurry, within which, a large volume of slurry is already being produced by farms. Thus, there is little free area available for slurry spreading.

- EPA site inspections of the combined pig farms noted that the organic fertiliser register was not being maintained, which is not in compliance with the applicant's licence.
- The nutrient levels in the surrounding intensive dairying land are already so high, that the use of further pig slurry on these lands is precluded.
- The proposed pig farm should be considered as a new development and not a replacement of one that is in full operation.
- The applicant's proposals for the pig farm access junction do not accord with the development standards of the Planning Authority and TII for rural road layouts.
- Much of the groundwater data used in the applicant's EIAR is out-of-date, with the proposed development posing a risk to groundwater sources. The underlying aquifer is extremely important to groundwater users in the locality and is a highly sensitive receptor at risk from land spreading and activities at the pig farm.
- The Local Authority produced their own site-specific study of water quality in the local river network which indicates that the Drumgorey Stream shows signs of nutrient enrichment downstream of Carrigroe pig farm.
- The EIAR for the proposed development (and that proposed at Caherbrack) has failed to incorporate up-to-date, site-specific water quality data of the current chemical status of groundwater and surface water.
- The land spreading areas adjoin designated Natura 2000 sites and there is a high risk that the proposed farm activities and land spreading could negatively impact the downstream water bodies and their qualifying interests, including the freshwater pearl mussel.
- The impacts of climate change must be taken into account when considering the longer-term impacts of the proposed pig farm.
- No proposals provided to demonstrate the proposed development will not add to greenhouse gas emissions. The Board must consider the rules, responsibilities and implications of the Climate Action and Low Carbon Development (Amendment) Bill, 2021.

- Potential health risks to communities living close to the intensive farms.
- 6.1.3. The appeal submission includes hydrology and hydrogeology observations as contained in a report prepared by Parkmore Environmental Services, a Roads, Traffic and Access Appraisal prepared by Malachy Walsh and Partners Engineering and Environmental Consultants, copies of EPA reports concerning the application site, the WFD River Basin Management Plan (3<sup>rd</sup> Cycle), and a Batneec Guidance Note for the Pig Production Sector on Integrated Pollution Control Licensing. The contents of these documents have been reviewed and noted in the assessment of this appeal case.
- 6.1.4. The grounds of the appeal by **Noel & Kathleen Reynolds** can be summarised as follows:
  - Project splitting, with inadequate cumulative/in-combination EIAR assessment of the development proposed on this site and the neighbouring pig farm at Caherbrack.
  - The same author completed numerous chapters of the EIAR and the competence of this author to write such wide-ranging sections of the assessment is questioned.
  - The NIS fails to consider the impact of the development on Nier Valley Woodlands SAC and Dungarvan Bay SPA. Run-off which is contaminated by slurry will find its way into the Colligan and Nier Rivers and direct into the Nier Valley Woodlands SAC.
  - The NIS fails to consider the Caherbrack and Carrigroe pig farms as one project. The NIS should also have considered the future proposal for a sow operation on the subject site.
  - The NIS fails to (i) establish a baseline for the condition of soils in the proposed land spreading area, (ii) account for increased slurry on foot of the proposed developments, (iii) relies on assumptions that slurry spreading to date has not caused any adverse effects and (iv) assumes that farmers receiving slurry have / would continue to spread it using best available methods.
  - The proposed development would result in a loss of local employment and damage all aspects of the environment.

- Increased traffic, malodour and noise will threaten the attractiveness of the local community, damage local businesses dependent on tourism and significantly impair the enjoyment of local amenities.
- The development will threaten the quality of ground and surface water, plant, animals and habitats, species and habitats within SACs and Caherbrack House (a Protected Structure).
- Increased traffic will hinder the ability of the local community to undertake safe walking and cycling trips.
- The proposed development should be assessed in the context of a greenfield site due to the reduced use/capacity of the existing facility, particularly since 2017.
- The baseline established in the EIAR does not reflect current groundwater and surface water quality conditions.
- The identified land spreading area is not accurate.
- The amount of slurry to be produced by the proposed development significantly exceeds the amount produced in recent years.
- Inaccurate slurry spreading records based on the EPA Organic Fertiliser Register.
- The applicant has failed to adequately consider the effect of spreading of slurry in relation to groundwater. The groundwater vulnerability classification of the GSI indicates that the majority of the spread lands have high vulnerability, with some areas having extreme vulnerability with less than 1 m of soil cover.
- Soiled water will discharge from the development into Drumgorey Stream.
- No provision for the secure storage of pig carcasses.
- No evidence that biofiltration and/or chemical scrubbing were considered to mitigate threats to human health.
- Malodour will have significant adverse impacts on the quality of life of those living closest to the development sites.

- The existence of adequate water supply to serve the site has not been established.
- Water use on the site will be much greater than the 5,000 cubic metres identified, as existing pig numbers are significantly below capacity and have been since 2017.
- The site is currently supplied with water from a spring on neighbouring land. The applicant's right of way granting access to use the spring is not recorded in the Land Registry.
- The trial well which was recently drilled on the site has no planning permission and no assessment of the capacity of the existing spring source has been undertaken.
- The traffic projections do not consider the scaled-back development which excludes the sow house. The delivery of piglets will generate extra traffic and this has not been taken into account in the traffic projections.
- The development will increase traffic on the R671 / R672, increase threats to road safety and safety of cyclists, threaten the physical integrity of Caherbrack House (a Protected Structure) and Caherbrack Bridge, provide inadequate access to/from the R671 and inadequate access to/from the Caherbrack site onto the L5074 and R671.
- Construction and operational traffic will threaten the physical integrity of Caherbrack Bridge and a documented lime kiln at the site.
- The EPA Batneec Guidance Note for the Pig Production Sector has not been adequately considered.
- Both pig farm developments will have negative effects on the amenity of a tourist area of "sensitive" designation, in particular from the designated scenic tourism route of the R671 / R672.
- 6.1.5. The appeal submission is accompanied by an oral hearing request, a copy of the third-party appeal submitted by Environmental Management Services on behalf of the concerned residents of Touraneena & Ballinamult, including the hydrology and hydrogeology report prepared by Parkmore Environmental Services, the Roads, Traffic and Access Appraisal prepared by Malachy Walsh and Partners Engineering

and Environmental Consultants, EPA reports concerning the application site and the Batneec Guidance Note for the Pig Production Sector and the WFD River Basin Management Plan (3<sup>rd</sup> Cycle). The contents of these submissions have been reviewed and noted in the assessment of this appeal case.

- 6.1.6. The grounds of appeal by Peter Sweetman & Associates on behalf of **Wild Ireland Defense CLG** can be summarised as follows:
  - The lands on which the slurry from this development will be disposed are a constituent part of the development which is not included in the application.
  - The applicant's EIAR does not fulfil the requirements of the EIA Directive.
  - The submitted NIS relies on but does not contain compliance with the Nitrates Regulations, as mitigation for the spreading of slurry.
  - The Appropriate Assessment (AA) carried out by the Planning Authority did not fulfil the requirements of the judgement of the CJEU in case 258/11. It contains lacuna and is not complete, as it did not cover the spreading of slurry and the emission of ammonia.
  - Water catchments along the south/south-east coasts are of concern with respect to elevated nitrogen concentrations, including the Blackwater and Suir catchments. This proves that compliance with the Nitrates Regulations is not adequate mitigation.
  - The AA carried out by the Board 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 protected sites.
  - On the basis of the submitted information, it is not possible for An Bord Pleanála to perform an AA which complies with the requirements of identified judgements of the Courts of Justice of the European Union.

## 6.2. Applicant Response

6.2.1. An appeal response was received from Curtin Agricultural Consultants Ltd. on behalf of the applicant on 14<sup>th</sup> July 2021 which can be summarised as follows:

- The pig farm has existed at this site for 40 years but requires investment in pig housing and slurry storage facilities to address a deficit in investment in the past.
- The proposed development seeks to upgrade the existing pig farm to achieve the highest environmental and production performance standards and to ensure it confirms to any EPA licence.
- The EIAR and NIS provide a comprehensive baseline description. The pig farm has been in existence for 40 years and there is a high degree of certainty that the baseline assessment captures any impacts of the existing development.
- Predicted impacts are assessed locally at the development site and within the wider study area where slurry will be land spread. Post mitigation impacts from the proposed development on human health and population, biodiversity, land and soils, water, air, climate, material assets, landscape and cultural heritage are not significant.
- The proposed development will result in improvements or reductions in impacts at the subject site including, regular removal of slurry using under slat scrapers combined with separate covered slurry stores which will reduce NH<sub>3</sub> emissions by more than 30%.
- The proposed separation distance to the Blackwater River (Cork/Waterford) SAC provides certainty that the aerial deposition of NH<sub>3</sub> will not have significant effects.
- The replacement of the earth-banked lagoons with concrete slurry storage tanks with leak detection facilities will improve the ability to monitor the groundwater quality under the tanks and result in a higher degree of certainty of the integrity of the on-site slurry stores.
- The volumes of traffic generated by both pig farm sites will not significantly change the total traffic on the local roads and the site access will be significantly improved. Slurry transport traffic from both pig farm sites will decrease by 14% on foot of the scaled back proposal on the subject site.
- The quantity of ground water used by the proposed development will not change significantly and will not adversely affect local supplies.

- The environmental effects on the wider study area and the land-spreading areas are addressed in the NIS and EIAR – lands unsuitable for spreading have been excluded, aquifer vulnerability has been mapped and soil types have been mapped.
- The baseline water assessment includes the impact of both existing pig farms.
- The volume of pig slurry from both pig farm sites will not change significantly (19,828 m<sup>3</sup> existing and 19,500 m<sup>3</sup> proposed), and as such, the hydraulic loading of the slurry and the impacts of land-spreading will not change significantly.
- In a worst-case scenario without mitigation, aerial deposition of NH<sub>3</sub> in the study area would increase by < 2% of the baseline study area deposition rates, which is insignificant. Both pig farm developments will reduce total NH<sub>3</sub> emissions by 18% compared to the existing situation.
- Water quality has reduced in Co. Waterford since 2015 but pig herd numbers have been constant, accounting for 4% of the stocking rate within the county.
- In addition to compliance with the Nitrates Regulations, the proposed development will have to comply with any EPA licence conditions.
- Separate planning applications were submitted for each of the pig farm developments due to the 1.25 km separation distance between the sites. This approach does not constitute project splitting, with the cumulative effects considered in the assessment of each site.
- Local environmental emissions will be reduced, and as such, it is not correct to state that the proposed development will have a negative impact on tourism.
- None of the risks to human health which have been identified by the appellants have been substantiated.
- The available nutrients in pig manure fertilizer must replace chemical fertilizer. When applied correctly, the nutrient load in the study area will not increase and the nuisance impact from land-spreading will not change significantly.

- The appeal submission from Environmental Management Services states that the entire study area is in breach of the Nitrates Regulations, which is incorrect.
- The applicant's design team have appropriate professional competencies to complete and submit this planning application.
- The applicant has demonstrated how the proposed development incorporates BAT in response to Item No. 8 of the Request for Further Information and in Chapter 2, Volume 2 of the EIAR.
- The NIS addendum addresses the potential impacts from land spreading within the study area and all adjoining protected sites.
- While the number of existing jobs will decrease from 10 to 7 in both existing pig farms, all jobs would be lost without the required investment in these farms.
- The existing farm has not been operated at full capacity for a number of years. If permission is not granted for the proposed development, the applicant intends to operate the pig farm to its maximum licensed capacity.
- An attenuated storm water system is proposed which represents an improvement on the existing storm water handling system. There will be no soiled water yards in the proposed development and carcasses will be stored in purpose-built sealed skips.

## 6.3. Planning Authority Response

6.3.1. None received.

## 6.4. Observations

6.4.1. 2 no. observations were received from: (1) Noel & Pauline Drohan, and (2) An Taisce. The issues which have been raised can be summarised as follows: (1) severe, long-term visual impacts, (2) the pig farm should be located not less than 400 m from the nearest neighbouring dwelling according to the EPA Batneec Guidance Note for the Pig Production Sector, (3) odour, noise, air pollution and

health impacts, (4) impacts on local water supplies/resources, (5) impact on walking and cycling routes, (6) impact on property values and Airbnb rental potential, (7) ongoing failure of GAP Regulations to prevent water pollution.

#### 6.5. Further Responses

- 6.5.1. A further response was received from Curtin Agricultural Consultants Ltd on behalf of the applicant on 20<sup>th</sup> September 2021. The response states that the applicant has no comments to make on the EPA's submission of 6<sup>th</sup> September 2021.
- 6.5.2. Further responses on the EPA submission of 6<sup>th</sup> September 2021 were also received from: (1) Noel and Kathleen Reynolds, (2) Jack O'Sullivan Environmental Management Services on behalf of The Concerned Residents of Touraneena & Ballinamult and (3) Noel and Pauline Drohan. The observers raise concerns that the spreading of pig manure on lands outside the planning application red line boundary is outside of the EPA's control. It is considered that the EPA's submission has not provided meaningful feedback on the proposed development and its potential environmental and residential amenity impacts.
- 6.5.3. A response was also received from Jack O'Sullivan Environmental Management Services on behalf of The Concerned Residents of Touraneena & Ballinamult in relation to the appeal submissions of Wild Ireland Defense GLC and Noel and Kathleen Reynolds. No new issues have been raised.

# 7.0 Assessment

- 7.1. The applicant has proposed changes to the development by way of the response to the Planning Authority's Request for Further Information. Permission was originally sought for development which included, inter alia, a 960 no. sow integrated farm (rearing all progeny to slaughter). The amended development includes, inter alia, a pig finishing unit for 6,200 finishers and 3,580 weaners. The amended development was readvertised to the public, and as such, forms the basis of my assessment.
- 7.2. The appellants have provided lengthy and detailed appeal submissions, which have been considered in my assessment of this case. Having regard to the information presented by the parties to the appeal and during the course of the planning application, and having undertaken an inspection of the appeal site, I consider that

the key planning issues in the assessment of this case can be addressed under the following general headings:

- Environmental Impact Assessment (EIA)
- Project Splitting / Cumulative Impacts
- Water Supply Impacts
- Groundwater / Surface Water Impacts
- Impacts on Local Community, Tourism and Local Businesses
- Site Access / Traffic Impacts
- Climate Change Impacts
- Use of BAT / BATNEEC
- Appropriate Assessment
- 7.3. Each of these issues is addressed in turn below.
- 7.4. Environment Impact Assessment (EIA)
- 7.4.1. The EIAR contains 4 volumes, grouped as follows:
  - Volume 1: Non-technical Summary
  - Volume 2: Environmental Impact Assessment Report
  - Volume 3: Appendices
  - Volume 4: Figures and Drawings

7.4.2. In accordance with Article 5 and Annex IV of the EU Directive, the EIAR provides a description of the project comprising information on the site, design, size and other relevant features of the project. It identifies, describes and assesses in an appropriate manner, the direct and indirect significant effects of the project on the following environmental factors: (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land and soils; (d) water (hydrology and hydrogeology), (e) air quality; (f) climate; (g) material assets including the public road network, public utilities and services, towns/settlements and rural dwellings, commercial businesses, tourism services, farms, commercial forestry and woodland, cultural heritage, waste management facilities, and National Monuments; (h)

landscape; and, (i) cultural heritage. It also considers the interaction between the factors identified above.

- 7.4.3. It provides an adequate description of forecasting methods and evidence used to identify and assess the significant effects on the environment. It also provides a description of measures envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects. Environmental Interactions, Cumulative Effects and Transboundary Effects are addressed in Chapter 12. The mitigation measures are presented in each chapter and are summarised in Chapter 13 (Summary of Residual Impacts and Environmental Commitments Mitigation) of the EIAR, and where proposed, monitoring arrangements are also outlined. Any difficulties which were encountered in compiling the required information are set out under the respective environmental topics.
- 7.4.4. I am satisfied that the information provided is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. I am also satisfied that the information contained in the EIAR complies with the provisions of Articles 3, 5 and Annex (IV) of EU Directive 2014/52/EU amending Directive 2011/92/EU.
- 7.4.5. While the competence of the author of the EIAR has been queried in the appeal submission from Noel & Kathleen Reynolds, I note the qualifications and expertise demonstrated by the experts involved in the preparation of the EIAR as set out in Volume 2, Chapter 1 and reiterated in the applicant's appeal response. I consider that the information contained in the EIAR and supplementary information provided by the developer, adequately identifies and describes the direct, indirect effects and cumulative effects of the proposed development on the environment and complies with Article 94 of the Planning and Development Regulations 2000, as amended.
- 7.4.6. I am satisfied that the information provided in the EIAR is sufficiently up to date and is adequate for the purposes of the environmental impact assessment to be undertaken.

## 7.5. Vulnerability to Risk of Major Accidents and / or Disaster

7.5.1. The requirements of Article 3(2) of the Directive include the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disaster. The EIAR addresses the risks from climate change/natural disasters and of accidents

and environmental incidents. There is no risk of flooding, subsidence, landslides or earthquakes at the site. The construction materials of the building will conform to national standards to withstand the strongest winds and the slurry tanks will be leakproof.

7.5.2. It is considered that having regard to the nature, scale and location of the development, there are unlikely to be any effects deriving from major accidents or disasters and I am satisfied that this issue has been addressed satisfactorily in the EIAR.

#### 7.6. Introduction

- 7.6.1. Chapter 1 of the EIAR introduces the project. The proposed development will comprise the demolition of the existing pig houses and the construction of new pig houses for a pig finishing unit of 6,200 finishers and 3,580 weaners, a feed mill building with workshop, a feed mixing room, a covered pig loading race, an electricity control building, a building with office, canteen, showers and WC, a wastewater treatment system and associated site works.
- 7.6.2. The pig farm is located in Co. Waterford in the Carrigroe and Drumgorey townlands, 3.5 km south of Ballymacarbery and 2 km north of Ballynamult. The lands adjoining the subject site are largely agricultural in nature, with sporadic rural dwellings. The applicant has submitted a concurrent planning application for a pig farm development (4,800 fat pig places and 3,700 weaner places) at Caherbrack Pig Farm 1.25 km south of the subject site.
- 7.6.3. A pig farm has existed on the site for 40 years and since 1980 has been developed to accommodate 6,300 fat pigs, with weaner pigs produced at Caherbrack Pig Farm. The existing development consists of pig buildings, associated slurry stores, feed storage milling and mixed sheds and tanks, a weigh bridge and other associated buildings and stores. The existing buildings have an area of approx. 6,720 m<sup>2</sup> with approx. 2,500 m<sup>2</sup> of earth banked slurry lagoon. Approx. 6,407 m<sup>2</sup> of the existing buildings will be demolished and the earth banked slurry lagoon will be decommissioned. A total of 3 no. workers are employed on the site and the operational hours are 8 am to 5 pm Monday to Friday, 9 am to 2 pm on Saturday and 10 am to 1 pm on Sunday.
- 7.6.4. The subject site is licensed and monitored by the EPA, with the licence allowing for the operation of a 1,200-sow integrated pig unit across the Carrigroe and

Caherbrack pig farms. The fully operational sites will produce approx. 19,800 m<sup>3</sup> of pig manure per annum. A study area for the EIAR has been defined as the 55 townlands in which pig manure is generally spread from both pig farms. The study area is mapped in Figure 1.6 of Chapter 1, with the relevant townlands listed in table 1.12.

7.6.5. There is a need to upgrade the existing pig farm to maintain the viability of pig production. The site has been selected to facilitate the proposed development based on: (1) the presence of the existing pig farm with significant existing production levels, (2) the existing farm requires considerable investment to upgrade it to modern standards, and (3) the management of manure is more efficient when produced close to customer farmers. The proposed development will employ 4 people on site and will support 24-28 jobs in the wider agri-business economy.

#### 7.7. Alternatives

- 7.7.1. Alternative development scenarios are considered in Volume 2, Chapter 2 of the EIAR. The existing pig farm is stated to be in urgent need of refurbishment to maintain adequate environmental and production standards. In a "do-nothing" scenario, the benefits of the proposed capital expenditure of €3 million will not accrue to the economy, the future viability of the pig farm would be in serious doubt, the existing employment would be jeopardy and the additional employment and economic activity accruing from construction work would not occur. The economic benefits of pig manure fertiliser to local farmers would also be in jeopardy. It is considered that the urgent viability and economic requirements justify a "do-something" scenario and that environmental impacts can be managed at an acceptable level.
- 7.7.2. Having considered alternative sites, none were considered as suitable to accommodate the proposed development as the existing site, which represents the best use of existing resources. There are no alternative locations within the applicant's existing sites in East Waterford which would accommodate the scale of the proposed development and it is noted that the intensification of these sites would increase disease and environmental pressures. Leasing an existing fattening operation is not a viable option as none are located close enough to the applicant's breeding farm in Matthewstown, Fenor, Co. Waterford.
- 7.7.3. With respect to alternative layouts, it is stated that there is limited space for new pig houses within the site boundary, with the proposed location offering the advantage of very low visual impact and being located furthest from neighbours. A range of alternative designs were considered, with the most up-to-date concepts selected for use. Having considered alternative processes, the standard indoor system with ventilated houses and slatted floors is identified as the only economically viable production system, with the Irish climate and soil types identified as being unsuitable for outdoor production. Alternative mitigation measures are also considered in relation to pig diets and potential treatment and processing of pig manure.
- 7.7.4. The level of detail of the consideration of alternatives is reasonable and commensurate with the project. I am satisfied that the requirements of the Directive in terms of consideration of alternatives have been discharged.

### 7.8. Chapter 3: Human Population and Human Health

- 7.8.1. The receiving socio-economic environment within the study area (55 townlands) includes rural dwellings and settlements, farms, commercial businesses, tourism assets, public water sources, ecosystem services and cultural heritage assets.
- 7.8.2. There are 5 no. small settlements within the study area and 520 rural dwellings, of which 39 no. are located within 1 km of the pig farm. The population of the study area is estimated to be 15 persons per square km, reflecting the absence of larger settlements. A range of commercial businesses are located in the 5 no. settlements, including a number of high sensitivity receptors.
- 7.8.3. The main land use in the study area is agricultural grassland. The proposed pig manure will replace the requirement for chemical fertilisers. The value of the existing pig manure to local farmers is approx. €76,680 per annum and the proposed pig farm will produce approx. €96,000 worth each year.
- 7.8.4. The study area has a number of tourist assets including the Nier Valley, the Commeragh Mountains, The River Nier and the East Munster Way. It also includes approx. 1,775 ha of forestry. The watercourses/rivers, 8 no. public water supplies and forests/woodlands within/ adjoining the study area are illustrated in Figure 3.1 of the EIAR and are noted to provide valuable amenity in the study area.
- 7.8.5. There are 5 no. national monuments and 2 no. features registered on the NIAH within 1 km of the site boundary. The nearest monument is located approx. 650 m

north-east of the site. Two features registered on the NIAH are located to the north of the site adjacent to the R671.

- 7.8.6. There will be no change to the baseline environment in a do-nothing scenario. In the absence of mitigation, there is a potential slight adverse impact on human health due to poor land spreading practices and potential impacts on water supplies. The local farming community will benefit from an increased supply of free local manure on foot of the proposed development. In combination with the existing pig farm at Caherbrack, the cumulative impact is slight positive on the local farming community. Local commercial businesses will generally benefit from increased economic activity and employment. In the absence of mitigation, the proposed development will have a positive but not significant impact on the local business environment.
- 7.8.7. There are no sensitive tourist assets close enough to the pig farm to be directly affected by the pig house emissions. Without mitigation, the potential impacts are not significant. Without mitigation, poor practices in the application of pig manure could lead to slight adverse effects on the natural water environment. Land spreading of pig manure will not affect the existing up-standing or below ground cultural heritage assets. In the absence of mitigation, there is the potential to damage an unknown archaeological asset, resulting in a moderate adverse effect on the cultural heritage environment. The proposed development will reduce traffic movements on the local road network by approx. 9 movements per day. Without mitigation, the proposed development will account for approx. 1 % of the total traffic on the R671.
- 7.8.8. Eight occupied dwellings and two derelict houses are located within the identified odour limit contour of the proposed development. In the absence of mitigation, the impact is deemed to be not significant slight adverse due to odour nuisance.
- 7.8.9. In the absence of mitigation, health impacts on the study area community are imperceptible due to the spread of pathogens in pig manure. The potential impact on the health of workers due to dust and gas emissions is slight moderate adverse in the absence of mitigation. The effects from noise emanating from the pig farm or land spreading will not significantly affect the wider community in the study area. Without mitigation, slight adverse impacts on human health (hearing damage/loss) may arise to personnel working within the boundary of the pig farm who may be exposed to noises which exceed HSA guidelines.

- 7.8.10. A range of mitigation measures are proposed during the construction phase of the proposed development including:
  - Construction contractors will require a safety statement and active safety policy for workers; a designated liaison officer will deal with issues arising and workers will be equipped with PPE.
  - A water tanker will be provided to douse exposed soil during dry weather; silt mitigation measures will prevent sediment run-off; and wheel wash facilities will ensure soil is not transported onto the public road.
  - Construction works will be confined to 8 am 6 pm Monday to Friday.
  - Noise screening will be provided in the event of rock breaking, with adjoining landowners notified in advance.
- 7.8.11. A range of mitigation measures are proposed during the operational phase including:
  - Pig manure will be applied strictly in control with SI 605 of 2017. Defined setback distances from all dwellings, schools, public water sources and domestic wells. Access for manure will generally only be allowed during the week, reducing potential nuisance to weekend visitors to the area. Caution will be exercised to avoid wind direction towards settlements when spreading manure.
  - Slurry storage exceeding 30+ weeks will allow storage of manure when weather conditions are unsuitable.
  - Use of low trajectory land spreading.
  - Low emission house design to minimise emissions of odour and ammonia.
  - Low protein diets, high cleanliness standards and the use of an odour management plan to reduce odour impacts.
  - An emergency response procedure and safety statement will be in place.
- 7.8.12. The residual impacts on human population and human health are considered not significant with the use of standard mitigation measures. The cumulative impacts of the proposed development and the concurrent application at Caherbrack pig farm have been considered. The cumulative operational phase traffic to both pig farms will decrease by 0.13% on the R671, which is not a significant impact. The overall

construction period for both pig farm sites will be approx. 24-26 months which will not significantly affect traffic on the R671. Cumulative impacts of emissions to air are not significant due to the low emission pig house design and the use of low protein diets. The Caherbrack pig farm site will not add significantly to potential noise impacts on humans or potential landscape or visual impacts and the enjoyment of the local landscape at the subject site. The cumulative effects of the proposed development on climate are so small so as to be insignificant from a national or regional climate change point of view. The combined GHG emissions from both pig farms will decrease by approx. 17%. The proposed development, including the spreading of pig manure, will not have a significant residual impact on social-economic and local community health when standard mitigation measures are employed.

7.8.13. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on human population and human health would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on population and human health.

# 7.9. Chapter 4: Biodiversity

- 7.9.1. No environmental designations apply to the study area. A total of 4 no. SACs are located within 15 km of the subject site, including Blackwater River (Cork/Waterford) SAC, Lower River Suir SAC, Nier Valley Woodlands SAC and Comeragh Mountains SAC. A total of 7 no. pNHA's are also located within 15 km of the subject site.
- 7.9.2. The habitats which are present on site are of local importance (ranging from lower higher value), with buildings and artificial surfaces accounting for the majority of the site and being of no ecological importance. No rare flora species were recorded during the site survey, nor are they expected to occur given that the habitats within the study area are relatively common or of no ecological importance.

- 7.9.3. A bat survey of the site showed no evidence that the pig farm buildings are being used by bats and no evidence of previous bat use was recorded. The trees which are to be felled as part of the proposed development have low bat potential. The derelict house in the south-east corner of the site appears to have some usage by bats.
- 7.9.4. No evidence of otter or badger was recorded on site. There is potential for pygmy shrew to occur. Red squirrel, fallow deer, Irish hare and pine marten are unlikely to occur on site. The Irish stoat and hedgehog species may occur on the site. The common frog and smooth newt are unlikely to occur on the site due to the lack of suitable clean water habitat. Overall, the study area is of local value for a range of terrestrial bird species that are relatively common in the Irish countryside. No high-risk invasive plant species were recorded within the site. Under a do-nothing scenario where the site was left unmanaged, a general pattern of succession would be expected to occur, including a covering of woodland and a mix of native and introduced species.
- 7.9.5. The habitats within the site boundary are relatively common and no Annex I habitats or rare or uncommon habitats or floral species will be directly affected by the proposed development in the absence of mitigation. The potential impacts of the proposed development on protected mammals will range from none to negligible in the absence of mitigation. In the absence of mitigation, the impact on terrestrial birds in habitats within and adjoining the site is predicted to remain negligible during the construction and operational phases of the proposed development. Any impact on amphibians and reptiles is also considered negligible.
- 7.9.6. Potential impacts on aquatic habitats could arise from increased silt levels in surface water run-off, inadvertent spillages of hydrocarbons from fuel and hydraulic fluid and increased nutrients from treated wastewater flowing from the site to the Drumgorey Stream. An increase in the quantities of storm water will not cause significant impacts. Discharges to ground via the proposed wastewater treatment system could potentially give rise to eutrophication of ground waters. Without best practice in the storing, handling and spreading of pig manure, there would be a slight adverse effect on water quality. If left unmanaged, there is potential for significant negative impacts as a result of the introduction of highly invasive plant species.
- 7.9.7. A range of mitigation measures are proposed with respect to biodiversity including:

- Demolition of buildings used by Barn Swallow will not occur during the bird nesting season.
- Best practice measures will be followed to mitigate uncontrolled surface water run-off and accidental spills.
- The use of wheel wash facilities to ensure vehicles entering and exiting the site are clean.
- 7.9.8. The residual impacts on habitats and species on the site on foot of the proposed development is considered neutral in the long-term and the predicted residual impact on flora and fauna will be insignificant. No cumulative impacts with respect to noise and disturbance or impacts on the water quality of the drainage ditches that feed into the Drumgorey Stream or nearby watercourses are predicted. The cumulative impacts on biodiversity of the subject development and that at Caherbrack pig farm are not significant. The cumulative impacts on biodiversity of the next nearest pig and poultry farms are also not significant. Overall, the impact on biodiversity from the proposed development is considered minor to negligible.
- 7.9.9. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on biodiversity would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on biodiversity.

# 7.10. Chapter 5: Land and Soils

- 7.10.1. The subject site is located on Ballytrasna formation subsoil, with the topsoil being Humic Podzolic. The Ballytrasna formation also underlies approx. 50% of the study area, with the remainder characterised by a variety of other formations. The principle soil type in the study area is a Humic Brown Podzolic, which is generally of good quality and mainly suited to grassland. Approximately 2% of the study area is made up of rock and peat. These soils are excluded for the purposes of land spreading.
- 7.10.2. The soils of the study area have the capacity to take the planned application rates of pig manure provided the land is not compacted or saturated at the time of application. The entire study area accounts for 9,768 ha of which 5,294 ha is suitable

for fertiliser application. At full production, both pig farm sites will produce approx. 19,500 m<sup>3</sup> of pig manure, which would require 1,045 ha for land spreading.

- 7.10.3. The existing customer base for pig manure is approx. 1,685 ha, with a P requirement of approx. 24,938 kgs. A total of 15,600 kgs will be produced from both pig farms each year, which is a similar level to that currently produced. Within the entire study area, there is a requirement for 78,351 kgs of P which can be supplied by chemical fertiliser or pig manure. The existing pig farms supply approx. 20% of this requirement, with the proposed developments supplying a similar amount.
- 7.10.4. There is no change to the baseline land and soils environment in a do-nothing scenario. The construction of the proposed development will require an additional 1 ha of agricultural land, which is not significant.
- 7.10.5. In the absence of mitigation, there is the potential to cause compaction and erosion when applying pig manure in unsuitable weather conditions/high soil moistures. There is also the potential to oversupply nutrients and reduce earthworm populations if over-applied. The existing pig farm produces approx. 8,520 m<sup>3</sup> of pig manure per annum, which is approx. 9% of the total P requirement of the study area. The proposed development will produce approx. 10,799 m<sup>3</sup> of pig manure per annum, an increase of 26%. A total of 78 kgs/ha of organic N will be applied from the pig manure produced on the proposed pig farm. Where applied to replace chemical fertiliser, these application rates will not significantly affect the soil nutrient status.
- 7.10.6. A range of mitigation measures are proposed with respect to land and soil including:
  - Maintain a pig manure export register and a record of slurry movement for inspection by the EPA/DAFM.
  - Adherence to mandatory regulations as specified in SI 605 of 2017 in the land spreading of pig manure.
  - 50 m buffer strip around rural dwellings to avoid impacts on private wells.
  - Areas mapped as 'rock at or near surface or karst' excluded from land spreading area to protect groundwater.
- 7.10.7. The residual impacts on land and soils are considered not significant before and after mitigation measures are employed. Replacing chemical fertiliser with organic manure will enhance the organic matter content of the soil and prevent degradation. Where manure is used in accordance with SI 605 of 2017, it will not have a

significant effect on soil nutrients. The risk to groundwater is low overall, with only 1% of the net spreadable land in the study area being of extreme vulnerability and overlying regionally important aquifers.

- 7.10.8. The in-combination effects of both pig farms on the baseline land and soils environment have been considered. The cumulative effect of land spreading of pig manure will not significantly affect land and soils. The total production of organic N at both pig farm sites will account for approx. 0.5% of the total organic N in County Waterford, which is not significant. The next nearest pig and poultry farms are remote enough from the study area not to cause significant cumulative effects.
- 7.10.9. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on land and soils would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on land and soils.

# 7.11. Chapter 6: Water

- 7.11.1. The groundwater vulnerability of the subject site is rated as high under the proposed buildings and extreme under the area of the slurry tank. The aquifer status is locally important. The majority (71%) of the spreadable agricultural area has a high groundwater vulnerability, 18% has an extreme vulnerability and 11% has low or moderate vulnerability. Approx. 7% of the study area (north-west) is classified as regionally important aquifers and 1-15% of this area has extreme vulnerability and regionally important aquifers.
- 7.11.2. The water supply for the existing pig farm is from a surface spring to the north-west of the site. Section 6.3.2.1 of the EIAR states that there is no bore well at the Carrigroe site and that the presented groundwater analysis results from 2 no. bore wells at the Caherbrack site provide the closest representative data. In the period between 2008 2013, groundwater nitrates were raised but did not exceed

guidelines, while groundwater chemical oxygen demand and ammonia were generally satisfactory and stable. No E. coli were present.

- 7.11.3. The groundwater status of the study area is good. Trends in water quality indicate that 5% of the study area is at risk of not maintaining this good status, with agriculture identified as the main pressure. A total of 38% of the study area is being reviewed due to trends in groundwater quality, with human activities identified as the main pressure. The remaining 57% of the study area is not at risk of losing its good quality status.
- 7.11.4. Eight very high sensitivity public water supplies have been identified within the study area, or adjoining it (Ballymacarbry/Ballyrohan, Boolavonteen, Kilbrien, Kilcooney, Nire, Tooraneena, pig farms at Caherbrack and Carrigroe). Groundwater analysis results for the public water supplies for the years 2011, 2014, 2015 and 2018 indicate that average nitrate levels were raised but did not exceed threshold values, ammonia is satisfactory and stable, while groundwater P is generally low.
- 7.11.5. Three surface water catchments are relevant to the study area and include the Suir Catchment, Colligan Mahon and Munster Blackwater. A macroinvertebrate assessment undertaken by the EPA during the period 2014-2017 showed that monitored river bodies were mainly of 'Moderate' or 'Good' status for the relevant areas within the 3 no. catchments. Overall trends of N and P in these catchments indicate that average N concentration showed a stable or weak downward trend between 2007-2017, with only 2 no. areas having a weak upward trend. Statistical analysis indicates that 55% of river sites had stable nitrate concentrations between 2007-2017, with little change in the percentage of sites with increasing or decreasing trends. Trends in P concentrations in relevant areas within the 3 no. catchments were mainly stable between 2007-2017, with 77.8% of sites showing no change, 17.6% of sites decreasing in P concentrations and 4.5 % showing increasing P concentrations.
- 7.11.6. Ten WFD river sub-basins intersect with the study area. Compared with the wider regional data, the study area has significantly more good quality and less poorquality water bodies and a much higher proportion of waterbodies not at risk.
- 7.11.7. The Drumgorey Stream to the east of the site is monitored at the Caherbrack pig farm site, with nitrates and ammonia levels being generally acceptable as recorded between 2008-2014. There are no EPA monitoring stations on the Drumgorey

Stream, with the most representative recently monitored EPA station being on the Finisk River at statin 'Br u/s Ballinamult Br' which recorded a 'Q4 – Good Status' in 2018. A Q-Value sample of the Drumgorey Stream taken in December 2019 approx. 53 m upstream of the confluence with the Finisk River gave a result of Q4 'Good' Status, which is downstream of the pig farm.

- 7.11.8. There is no change to the baseline water environment in a do-nothing scenario. Groundwater quality is generally acceptable at the existing site and pig manure will be stored in leakproof tanks, with an ongoing groundwater monitor programme. Therefore, the pre-mitigation impacts of the proposed development are not significant. Excavation during construction will not significantly affect the hydrology of the surrounding land. The groundwater requirement of the farm will increase from 35 m<sup>3</sup>/day to approx. 49 m<sup>3</sup>/per day, which will not significantly affect local groundwater supplies. The installation of the wastewater treatment system will have no significant effects on groundwater when constructed to specification. Overall, there is no significant pre-mitigation impact on groundwater at the subject site on foot of the proposed development.
- 7.11.9. The overall groundwater environment of the study area is high sensitivity, and its quality status is good. In the absence of mitigation, the pig manure has the potential to increase the nutrient content of the spread lands, thus potentially increasing N leaching to aquifers. The volume of pig manure will not increase on foot of both pig farm developments compared to the existing production. Any risk to groundwater would arise from the misuse of pig manure, poor practice land-spreading and non-adherence to SI 605 of 2017. The pre-mitigation impact on groundwater in the study area is not significant.
- 7.11.10. The pre-mitigation impact on surface waters from the existing pig farm is slight adverse due to the potential for pig manure to impact on water quality if not applied in accordance with the relevant regulations. The proposed development will not change this potential impact. Results of water sampling undertaken by the applicant at 7 locations in 2019 and the monitoring of 8 EPA monitoring points which are relevant to the study between 2016-2018 found the following water quality status: 26.6% high quality, 46.6% good quality, 20% moderate quality, and 6.6% poor quality. These results are in line with or exceed expectations for the region.

- 7.11.11. The mitigation measures which are proposed during the construction phase can be summarised as follows:
  - An Incident Report Plan will be prepared outlining procedures in the event of spillage of fuel or other harmful material.
  - Sediment erosion and pollution prevent techniques will be used during the construction phase.
  - A dousing tanker will be used to prevent dust contaminating surface waters.
  - Refuelling will take place off site where possible and machinery will be checked for leaks.
  - A Construction and Demolition Environmental Management Plan will be agreed with the Planning Authority.
  - Washout from concrete mixers will be handled off site and soil contaminated by harmful materials will be removed from the site by an approved waste contractor.
- 7.11.12. The following mitigation measures are proposed during the operational phase of the pig farm development:
  - Continued surface and groundwater monitoring at the site. Surface water monitoring will include Q-testing of the Drumgorey Stream up-stream and down-stream of both pig farm developments.
  - Storage of pig manure in bunded leak-proof tanks with leak detection facilities and integrity testing every 5 years.
  - Regular inspection of the wastewater treatment system.
  - Pig manure take-off points are concreted and pig walk-ways are slatted and concreted, with run-off drained to slurry tanks.
  - Good operational practices to ensure a high degree of cleanliness.
  - The under-slat scraping system and covering of slurry stores will reduce emissions and reduce potential impacts on surface waters.

- 7.11.13. The following mitigation measures are proposed during the operational phase with respect to land spreading:
  - Regular engagement with customer farmers to encourage and ensure best practice land spreading, with monitoring of spreading equipment to ensure leaking equipment is not used.
  - 30+ weeks on site manure storage will allow manure to be spread at suitable times of the year.
  - Reduced protein levels in balanced diets will reduce levels of nitrogen in the manure and reduce potential NO<sub>3</sub> leaching.
  - Maintenance of a manure register to monitor movements for inspection by the EPA.
  - Appropriate buffer zones around private wells, public water sources and karst features to protect groundwaters.
  - Adherence to SI 605 of 2017 and the Nitrates Explanatory Handbook for Good Agricultural Practice for the Protection of Waters Regulations, 2018.
- 7.11.14. The residual impacts on water are not considered significant when mitigation measures are employed. Pig manure has been spread in the study area for 30 years and existing water quality is generally satisfactory. The groundwater status for the region is good. The groundwater nitrate, phosphate and ammonia levels are generally satisfactory throughout the study area and there is no evidence that the existing pig farms are having a detrimental impact on groundwater quality in the area. The residual impact of the proposed development on hydrology and groundwater is not significant. The operation of the existing pig farms has not adversely affected the existing water environment. The operation of the proposed development will have a similar, if lower, impact due to lower emissions from the houses, more modern buildings and management standards and higher environmental standards in the application of pig manure.
- 7.11.15. The cumulative effects of the proposed development with the concurrent application at Caherbrack and other pig and poultry houses within/adjoining the study area has been considered. There are no significant cumulative effects from agricultural organic nitrogen on water.

7.11.16. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on water would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on water.

### 7.12. Chapter 7: Air

- 7.12.1. This chapter considers ammonia, methane, nitrous oxide, dust and odour emissions. The rural air quality for this area is rated as good by the EPA Air Quality Index for Health. The sensitive receptors in the receiving environment with respect to emissions include agricultural land holdings, rural dwellings, commercial businesses, tourist services, settlements, public water sources, ecosystems and cultural heritage assets.
- 7.12.2. The main gaseous emissions from the proposed development are ammonia (NH<sub>3</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), dust, particulate matter (PM) and malodour. Ammonia, methane, nitrous oxide and malodour are emitted from land spreading and ammonia, methane, nitrous oxide, dust, particulate matter and malodour are emitted from the pig houses. The EPA's AER/PRTR calculation tool for intensive agriculture allows licensed IPPC pig facilities to calculate annual fugitive emissions of ammonia, methane and nitrous oxide from standard conventional pig housing.
- 7.12.3. The existing pig unit produces 20.2 tons per year of NH<sub>3</sub>, with 3.6 tons of this being emitted from the 2,500 m<sup>2</sup> of uncovered slurry lagoons. The remainder is emitted from land spreading with ammonia deposited over the study area at a rate of approx. 0.7 kg/ha/yr. Pre-mitigation, NH<sub>3</sub> from the proposed development land spreading will increase to approx. 1kgs/ha/yr. It is noted that each m<sup>3</sup> of pig manure replaces approx. 2.1 kgs of chemical N fertiliser and as such, off-sets NH<sub>3</sub> released from chemical fertiliser. This off-set has not been factored into the applicant's assessment.
- 7.12.4. Approx. 13,560 kgs of the existing pig farm NH<sub>3</sub> is emitted from the pig houses and uncovered lagoons and is deposited within a few kilometres of the pig farm at rate of approx. 19 kg/ha/yr. Before mitigation, this is projected to increase to 14,040 kgs or 0.7 kgs/ha in the vicinity of the pig farm. Ammonia deposition can have adverse

human health impacts and can potentially lead to nutrient enrichment and acidification of surface waters and sensitive habitats.

- 7.12.5. Methane gas is emitted from the digestive process of organic matter in pigs and the anaerobic decomposition of organic matter in manure. Methane dissipates to the atmosphere where it contributes to the GHG effect. The existing pig unit produces 83.9 tons of methane per year, which is dissipated to the atmosphere of the study area at a rate of 8.6 kgs/ha/yr. Before mitigation, methane is projected to increase to 113.7 tons, resulting in an increased loading of 3 kgs/ha/yr when allocated to the study area. This increase is based on standard slatted housing and the additional pigs which will be housed at the site. However, the low emission housing will mitigate methane emissions from the pig houses, as will the storing of manure separately in covered slurry tanks. This will result in a potential methane reduction of approx. 40%, with the calculated figure per annum reduced to 68.2 tons.
- 7.12.6. The existing pig unit produces 91 kgs/yr of nitrous oxide which is dissipated to the atmosphere of the study area at a rate of 0.01 kgs/ha/yr. Nitrous oxide is predicted to increase to 106.5 kgs per year, an increased loading of 0.0015 kgs/ha/yr when allocated to the study area. Low emission housing, low protein diets and separate covered slurry storage will mitigate N<sub>2</sub>O emissions from the pig houses, while the storage of slurry in separate covered tanks will also reduce emissions. Therefore, assuming a 40% reduction in emissions, the calculated figure of 0.1065 tons per annum will be reduced to 0.064 tons.
- 7.12.7. Dust emissions from construction activities may occur where exposed soil is exposed during windy conditions. Dust emitted from the pig houses may contribution to malodour emissions. Particulate matter is also found in emissions from pig buildings but at very low levels which are readily dissipated in the atmosphere to harmless levels.
- 7.12.8. Odours result at land spreading locations from the decay of pig manure on the ground and from the production of aerosols during spreading. Odour emissions from pig buildings arise from the pigs themselves and the storage of manure. Odour may also arise from the storage of carcass material on site.
- 7.12.9. Very small quantities of sulphur dioxide will be produced on the site from the combustion of fuels. Hydrogen gas may be vented from the site during slurry agitation and pumping. Carbon monoxide is produced from the decomposition of

slurry, while non-methane volatile organic compounds are produced from slurry storage. The concentrations of these compounds are negligible, but combined they create odour and are emitted in very small quantities via ventilation.

- 7.12.10. There is no change to the baseline environment in a do-nothing scenario. The potential pre-mitigation impacts of ammonia, methane and nitrous oxide emissions on the sensitive receptors in the receiving environment have been considered. No significant effects on the identified receptors will arise.
- 7.12.11. Pre-mitigation construction dust emissions are unlikely to cause significant effects on human health or adjoining ecosystems due to the short duration of the construction period. The potential effect of construction dust on workers is slight-moderate adverse in the absence of mitigation. Dust on buildings can be washed into storm-water run-off and has the potential to cause a not-significant slight adverse impact on receiving waters without mitigation. Odour causing compounds can cling to dust and there are potential pre-mitigation effects on workers in the pig confinement buildings.
- 7.12.12. The Odournet UK Ltd. report "Odour Impacts and Odour Emission Control Measures for Intensive Agriculture", (2001) has been used to assess odour impacts arising to neighbouring residential properties on foot of the proposed development. An odour model has been prepared as illustrated in Figure 7.3 which identifies odour impact contours under various scenarios, with the existing and proposed pig numbers expressed as their equivalent integrated sow numbers. There are 8 no. occupied houses and 2 no. un-occupied houses within the identified 960 no. sow odour limit contour for the existing pig farm. In the absence of mitigation, this result remains unchanged on foot of the proposed development.
- 7.12.13. Sulphur dioxide and non-methane volatile organic compound emissions will have no significant effect in the absence of mitigation. Hydrogen sulphide and carbon monoxide emissions could have a moderate adverse – significant adverse effect on worker's health in the absence of health and safety measures.
- 7.12.14. The following mitigation measures are proposed during the construction phase:
  - Construction workers will be equipped with PPE to mitigate construction and demolition dust.

- Licensed contractors will remove asbestos roofing.
- Demolition material will be segregated and stored in skips to minimise dust production.
- A water tanker will douse exposed soil during dry weather to prevent dust nuisance.
- Construction works will be confined to normal working hours.
- 7.12.15. The following mitigation measures are proposed for land spreading emissions during the operational phase:
  - Where possible, the pig farm will use contractors with low emission spreaders.
  - Appropriate set-backs from sensitive receptors will be adhered to.
  - Manure application will be timed to reduce impacts on local residents, with notifications of planned application in sensitive areas.
  - Application rates in SI 605 of 2017 will be adhered to.
  - Reduced protein in pig diets by 1% compared to conventional diets will reduce NH<sub>3</sub> loss in manure.

7.12.16. The following mitigation measures are proposed in the pig houses during the operational phase:

- A surface water monitoring programme will mitigate potential adverse effects of dust on surface water run-off.
- Pigs will be fed on an automatic wet feed system, reducing dust levels in the internal and external environment. Odour will also be mitigated.
- Feed silos and augers are completed houses in the proposed mill building, replacing the existing uncovered scenario.
- Good operational practices to minimise odour at the farm.
- Storage of pig carcasses in air-tight containers, with collection at least every 2 weeks.
- A 1% reduction in protein in pig diets will result in a 10% odour reduction.
- Low emission housing design will reduce NH<sub>3</sub> and odour emissions by approx. 40%.

- The combined effect of low emission housing and reduced protein is to reduce the estimated pre-mitigation NH<sub>3</sub> emissions by 50% and odour by at least 40%.
- Low emission housing will reduce emissions of  $CH_4$  and  $N_2O$  by approx. 40%.
- Covering of slurry stores to reduce NH<sub>3</sub> and odour emissions.
- The ventilation system will include high powered fans which will aid dispersion of odour, remove harmful concentrations of dust, particulate matter and toxic gases.
- Adherence to the current "Code of Good Agricultural Practice for Reducing Ammonia Emissions from Agriculture".
- Pig farm safety statement includes administrative controls to minimise the source of, and amount of time workers are exposed to dust, NH<sub>3</sub> and particulate matter and ensures adequate cleaning of pig houses, safety and awareness training and PPE.
- Procedures for the safe handling of slurry and warning signs will be used to protect workers from the effects of H<sub>2</sub>S and CO.
- 7.12.17. In terms of residual impacts, potential nuisance effects from land spreading are noted to be transitory and not significant. The proposed development will increase land-spread baseline levels of ammonia by 0.3 kgs/ha/yr to the ambient environment of the study area in the absence of mitigation. With mitigation, such as the adoption of alternative manure application and treatment techniques and attention to the timing of manure spreading, this increase can be reduced to zero. The replacement of chemical fertiliser will also mitigate these effects.
- 7.12.18. Total NH<sub>3</sub> emissions from the proposed development are likely to be approx. 13.9 tons, compared to 20.2 tons emitted from the existing pig farms. This is a decrease of 31% and will have a significant – slight positive effect. The receiving environment is predominantly agricultural land, and with mitigation, there will be no significant impact from NH<sub>3</sub> emissions from the proposed development. There are no known human health implications at these emission levels.

- 7.12.19. With mitigation such as good ventilation, covering slurry stores, cleanliness practices and wet feeding, the odour impact is reduced by approx. 40%. As such, the odour impact of the proposed development will not be significant.
- 7.12.20. The low emission housing design, which removes slurry regularly from the pig houses and stores it separately in covered stores, will reduce methane and nitrous oxide emissions by approx. 40% compared to conventional housing. The result is that the proposed development will provide 19% less methane and 30% less N<sub>2</sub>O compared to the existing pig farm. The emissions of dust and gases such as Sulphur Dioxide, Hydrogen Sulphide, carbon monoxide and non-methane volatile organic compounds will not change significantly from the very low levels already produced at the site. Overall, the residual impacts of the proposed development on air are considered to be not significant when mitigation measures are employed.
- 7.12.21. The cumulative impact from land spreading throughout the study area has considered the potential effects of the combined application of approx. 19,500 m<sup>3</sup> of pig manure from the subject site and the proposed pig farm development at Caherbrack. The next nearest pig and poultry farms are remote enough from the study area to not cause significant cumulative effects.
- 7.12.22. There is the potential for cumulative emissions of NH<sub>3</sub> and odour from the Caherbrack pig farm site. The post mitigation cumulative effects are not significant for NH<sub>3</sub> emissions, which will be 10% less compared to the existing situation. The cumulative impacts from GHG emissions are not significant, as these will reduce by approx. 8% for CH<sub>4</sub> and 12% for N<sub>2</sub>O. The cumulative effects of dust, particulate matter and other gases such as sulphur dioxide, hydrogen sulphide, Carbon Monoxide and non-methane volatile fatty acids are not significant in both sites and the cumulative effects remain not significant.
- 7.12.23. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on air would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on air.
  - 7.13. Chapter 8: Climate

- 7.13.1. In the context of climate, the sensitive receptor is identified as the receiving national atmosphere. In provisional EPA figures for 2018, agriculture accounted for 34% of national emissions, with agricultural emissions increasing by 1.9% following an increase of 2.9% in 2017. The most significant drivers for the increased emissions in 2018 are higher dairy cow numbers (+2.7%) with an increase in milk production (4.4%). In 2018, there were also increased CO<sub>2</sub>eq emissions from synthetic fertiliser application on agricultural soils (+10.7%). Nationally, the pig sector is responsible for approx. 376 Kt CO<sub>2</sub> equivalent emissions which is approx. 2% of the national agricultural total.
- 7.13.2. The rural environment of the study area is expected to have very low levels of sulphur dioxide, carbon monoxide, non-methane volatile organic compounds and particulate matter. The source of ammonia in the atmosphere is almost entirely due to agricultural production and management of animal manure. The national pig herd is responsible for less than 2% of national emissions based on 2017 livestock numbers.
- 7.13.3. There is no change to the baseline climate environment in a do-nothing scenario. The existing pig farm produces 2,124 tons of equivalent CO<sub>2</sub>. The existing GHG emissions are predicted to increase by 35%, which represents 0.015% of national agricultural emissions. In the absence of mitigation, the proposed development will not significantly impact on climate. In light of the national GHG targets, the unmitigated impacts would represent a not significant - slight adverse impact. The impact of the proposed development and that which is proposed at Caherbrack pig farm in the displacement of chemical fertiliser is negligible, as the slurry volumes will not change significantly. Approx. 20.2 tons of ammonia is produced by the existing development and 19.9 tons will be produced by the proposed pig farm in the absence of mitigation. When compared to the national total of 116 kt, this will not significantly affect the existing climate. In light of national emission limits for NH<sub>3</sub>, the unmitigated increase would represent a not significant – slight adverse impact. The quantities of sulphur dioxide, carbon monoxide, non-methane volatile organic compounds and particulate matter produced will be insignificant relative to national production and therefore without mitigation, the effects are not significant.
- 7.13.4. The following mitigation measures are proposed with respect to climate during the construction phase:

- Fuel consumption and exhaust emissions from machinery operating on site will be controlled by regular servicing and engines will be turned off when not in use.
- Water spraying of construction areas and delivery vehicles during dry periods.
- Materials will be handled and stockpiled to minimise their exposure to wind.
- Recycled materials will be used where possible and haul distances will be minimised by selecting locally sourced materials.
- 7.13.5. The following operational phase mitigation measures are proposed with respect to land spreading emissions:
  - Using contractors with low emission spreaders where possible.
  - Applying manure in accordance with SI 605 of 2017.
  - Reduced protein diets can reduce levels of NH<sub>3</sub> and N<sub>2</sub>O loss in manure by up to 30%.
- 7.13.6. The following operational phase mitigation measures are proposed with respect to emissions from the pig houses:
  - An Energy Management System will be implemented. Natural gas heating system with thermostatic controls will be used, with automatic controls on the ventilation system.
  - Use of night rate electricity where possible and the use of low energy equipment and lighting.
  - Use of high U-value insulation materials in the proposed buildings.
  - Low emission building design which will reduce CH<sub>4</sub> and N<sub>2</sub>O by approx.
    40%.
  - Covered slurry tanks will minimise emissions.
  - Good operational practices to minimise dust and particulate matter emissions.
  - Use of automatic wet feed system significantly reduces dust levels.
  - Implementation of Air Quality (Odour) Management Plan.

- Use of modern feed additives to improve nitrogen retention in pig carcasses, thereby reducing ammonia emissions.
- 7.13.7. The low emission housing, covering of slurry stores and low protein diets will reduce methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) by 40% and results in CO<sub>2</sub> emissions which are 19% below the existing pig farm. In the context of total national emissions, the residual impacts of the proposed development are considered not significant with mitigation. The impact of NH<sub>3</sub> on climate is not significant.
- 7.13.8. Post mitigation, the cumulative impact of the proposed development and the concurrent Caherbrack pig farm development will produce 1,456 tons of CO<sub>2</sub> equivalent, which comprises a 17% reduction in existing GHG emissions. The total post mitigation emissions from both pig farms are less than 0.02% of the national agricultural CO<sub>2</sub> emissions and therefore, the impact is not significant. When the cumulative effects of the proposed Caherbrack pig farm are considered, there is an 18% reduction overall in NH<sub>3</sub> emissions compared to the existing situation. The impact of NH<sub>3</sub> on climate is not significant. The next nearest pig and poultry farms are remote enough from the study area to not cause significant cumulative effects on climate.
- 7.13.9. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on climate would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on climate.

### 7.14. Chapter 9: Material Assets

- 7.14.1. A range of material assets are identified in the study area including, roads, public utilities and services, 5 no. settlements, 520 no. rural dwellings, rural businesses, farms, commercial forestry and woodland, tourism services and cultural heritage. The material assets outside of the study area which may be affected by the proposed development are waste management facilities.
- 7.14.2. There is no change to the baseline environment in a do-nothing scenario. There may be a not significant – slight adverse impact on the local farming environment due to the loss of additional soil nutrients.

- 7.14.3. In the absence of mitigation, the impact of the proposed development on the local road network is imperceptible and there will be no impact on the power transmission system and existing or planned wind turbines. There are no significant effects from the pig farm on the nearest settlements due to the separation distances arising (2- 4 km). The impact of land spreading and agricultural traffic is considered not significant as these are common features of rural areas. Emissions will have a not significant slight adverse impact on dwellings in the vicinity of the pig farm.
- 7.14.4. Without mitigation, there will be no effect on the power supply, traffic and road network serving local businesses and tourist assets during the construction and operational phases. No significant impact will arise on the rural dwellings and settlements that share the 142 km local road network with tractors and slurry tankers during the construction and operational phases of the proposed development. There is a not significant effect on local dwellings and tourist assets from malodour due to land spreading and there will be no significant effects on the potential to develop private property in the study area as a result of the proposed development.
- 7.14.5. The proposed development will take approx. 1 ha of additional agricultural land which accounts for approx. 0.001% of the agricultural area of the county, and as such, is not significant. The local farming community will continue to benefit from free organic fertiliser each year. The proposed development will have a not significant slight positive impact on agricultural land. In the absence of mitigation, the proposed development will not have a significant effect on local forestry plantations, woodland and above / below ground cultural heritage sites. The volumes of additional materials destined for waste treatment in approved waste facilities is small (0.01%) relative to regional production and without mitigation, will not have a significant effect on same.
- 7.14.6. The following mitigation measures are proposed with respect to material assets during the construction phase:
  - Construction and demolition materials will be stored in approved waste contractor skips and building materials will be secured to prevent weather damage.
  - Haul distances will be minimised by using locally sourced building materials where possible, which will be ordered in bulk to minimise deliveries and impacts on the local road network.
  - Materials will be recycled where possible.

- Silt and sediment control measures to control construction run-off, with wheel wash facilities used to prevent soiling of road network.
- A Construction and Demolition Environmental Management Plan will be agreed with the Planning Authority in advance of construction.
- 7.14.7. The following mitigation measures are proposed during the operational phase:
  - SI 605 of 2017 will be adhered to, to maintain the soil nutrient balance and protect water supplies.
  - An Odour Management Plan will be implemented to reduce odours.
  - Low emission house design will reduce GHG emissions. Low energy equipment and lighting with automatic controls will reduce energy consumption.
  - A policy of waste reduction will be maintained, and all waste contractors will have the necessary waste licences.
  - Water usage will be minimised by maintaining a low water to feed ratio and ensuring water fixtures are in good working order.
- 7.14.8. The residual impacts on the material asset environment are considered imperceptible with standard mitigation measures and there is a not significant – slight positive effect on agricultural land and farming.
- 7.14.9. Potential cumulative effects on material assets of the proposed development and that which is proposed at Caherbrack pig farm include effects on traffic. Both pig farms development will not be constructed at the same time. In a worst-case scenario, where construction was undertaken concurrently, the combined construction traffic would be 60 movements per day / 2.5% of the ADDT on the R671, which is not significant.
- 7.14.10. Emissions to air may impact on sensitive receptors such as dwellings located in the vicinity of both pig farms. After mitigation, the impacts are not significant. Cumulative emissions from the land spreading of pig manure from the Carrigroe site will not significantly affect groundwater sources, commercial businesses or tourism services. The proposed development will not add significantly to potential noise impacts on business or tourist assets in the area. It will also not add significantly to

potential landscape and visual impacts at the Caherbrack pig farm and the human enjoyment of the local landscape.

- 7.14.11. Approx. 1 ha of additional land is required to facilitate the proposed development with a further 1 ha required at the Caherbrack site, which is not a significant effect. The use of this agricultural land will not significantly affect the existing development potential of land surrounding the pig farms. Poultry farms outside the study area are remote enough to not cause significant cumulative effects. There are no significant residual or cumulative effects on the material asset environment on foot of the proposed development.
- 7.14.12. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on material assets would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on material assets.

### 7.15. Chapter 10: Landscape

- 7.15.1. The area around the pig farm is typified by small foothills to the south and west of the Comeragh and Monavullagh Mountains, with pasture interspersed with farmyards and commercial forestry being the dominant visual features. In the lower parts of the landscape, there are many dense hedgerows, and the landscape has a more closed appearance. As the elevation rises to the east towards the mountains, the landscape is more open with less dense hedgerows and open pastureland intermixed with commercial forestry. The northern part of the subject site is categorised as a 'sensitive' landscape in the Scenic Landscape Evaluation of the Waterford County Development Plan.
- 7.15.2. There is no change to the baseline environment in a do-nothing scenario. The existing views of the pig farm are limited due to topography and screening. There is a mixture of native woodland and commercial forestry screening to the east and a commercial forestry plantation to the west and north-west. The adjoining cattle yard and tree-lined boundary on the southern site boundary screen all existing pig buildings and leave only the mill building and feed silos visible from the south. There are no views of the existing site from the scenic route 2.4 km to the east. There are

no significant views from the Comeragh or Monavullagh Mountains which are located 6 km from the site. Overall, the existing landscape impact is not significant.

- 7.15.3. The existing pig farm buildings are laid out close together. The proposed development accommodates less buildings with a larger footprint. The long low design of the pig houses results in a low profile on the landscape which reduces the visual impact. The feed mill and workshop building will have an apex height of 13.9 m and will be the most noticeable in the landscape, with the highest potential visual impact. This building will replace the existing mill building which has a height of 12 m and reduces the visual impact by covering the meal bins and grain augers which are prominent existing features. Without mitigation, the proposed development will have a not significant slight adverse impact, as it will replace an existing pig farm on the site.
- 7.15.4. There are no views of the proposed development from the east on the R671 and there will be no change in the visual impact along this road. There will be restricted views of the proposed development on the R671 directly south of the subject site. There will be no significant change in the visual impacts from the south. There will be no views of the proposed development from the west due to commercial forestry screening and the local topography. To the north-east and north-west, the proposed development will be screened by local topography and forestry. The northern part of the site will be extended into the adjoining field and will remove evergreen trees which partially screen the existing buildings. There will be an additional visual impact directly to the north where the proposed buildings will be visible. However, there are no sensitive receptors at this location and the impact is not significant.

7.15.5. The following mitigation measures are proposed with respect to landscape impacts:

- Natural screening is provided by commercial forestry, hilly topography and woodland/hedgerows.
- The roofs will be a dark green colour to blend in with existing agricultural buildings in the local area.
- The low-profile design of the pig buildings mitigates potential visual impacts.
- The mill/workshop building will be dark green to mitigate its visual impact and will represent a reduced visual impact from the existing silver coloured meal silos.

- Screen planting of native and indigenous species will be provided around the site boundaries.
- 7.16. Having regard to the existing site characteristics, the sensitivity of the landscape environment and the magnitude of impacts, the proposed development, while larger than the existing pig farm, will not significantly change the impact on the landscape character. The removal of screen planting to the north-east of the site will open up views from the east/north-east. However, there are no existing houses at this location and a hedgerow will be planted along the boundary to mitigate the visual impact. The post mitigation residual impact is not significant.
- 7.17. When travelling south along the R671, there are locations where the proposed development and that at Caherbrack pig farm can be seen. Due to the separation distances arising, the cumulative visual impact is not significant. The next nearest pig and poultry farms are remote enough from the study area to not cause cumulative effects on the landscape and as such, are not significant.
- 7.17.1. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on landscape would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape.

# 7.18. Chapter 11: Cultural Heritage

- 7.18.1. A farm is recorded on the subject site in the first edition OS survey of 1840, including 3 no. buildings arranged around a yard. An additional building was constructed to the west side of the site before the end of the 19<sup>th</sup> century. The proposed development includes the demolition of all the existing buildings on the site.
- 7.18.2. No monuments are recorded in the vicinity of the proposed development. Five recorded monuments and two buildings of architectural significance (as described on the NIAH) are located within 1 km of the subject site as listed in tables 11.1 and 11.2 respectively of Chapter 11 of the EIAR.
- 7.18.3. The do-nothing impact would result in no changes to the archaeological environment of the subject site. While there are no known monuments on or beside the development site, no investigations have been undertaken below ground. There may

be remains or earlier buildings/settlements within the footprint of the proposed development. Some disturbance on much of the site can be expected from 20<sup>th</sup> century building activity. In the absence of mitigation, there is a possibility that material of archaeological interest will be disturbed, or further disturbed, by the proposed construction works.

- 7.18.4. The following mitigation measures are identified with respect to cultural heritage:
  - The monitoring by an experienced field archaeologist of the removal of topsoil and current building footprints and surfacing at the start of building works and the recording of any material of archaeological significance.
- 7.18.5. No significant residual impacts are anticipated subject to ongoing monitoring of groundworks. The cumulative archaeological impact of the proposed works and earlier works on site will also be monitored during construction.
- 7.18.6. The desktop assessment suggests that the residual impact of the proposed works on archaeological material will be minor, as little material of archaeological interest is expected on site. This situation will be reassessed as monitoring works progress.
- 7.18.7. I have considered the submissions on file and this chapter of the EIAR. I am satisfied that potential effects on cultural heritage would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on cultural heritage.

# 7.19. Chapter 12: Interactions, Cumulative Effects and Transboundary Effects

7.19.1. Chapter 12 considers the interactions between key environmental factors as summarised in table 12.2. For the identified interactions, the residual impacts are not significant when standard mitigation measures are employed. I have considered this chapter of the EIAR. I am satisfied that the interactions between the factors identified earlier in the report are adequately identified and that impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on the environment by virtue of the likely interactions between the factors discussed.

- 7.19.2. The cumulative impacts of the proposed development are considered in each individual chapter of the EIAR and are summarised in table 12.3 of chapter 12. No additional cumulative impacts other than those already identified in the individual assessments arise when all cumulative impacts are considered as a whole.
- 7.19.3. Given the location of the proposed pig farm development and the extent of its zone of influence, no transboundary impacts will arise on foot of the proposed development.

# 7.20. Chapter 13: Summary of Residual Impacts and Environmental Commitments (Mitigation)

- 7.20.1. Table 13.1 in chapter 13 summarises the residual impacts of the proposed development before and after mitigation. Table 13.2 contains a summary of the environmental commitments / mitigation measures as they relate to each environmental factor / EIAR chapter.
- 7.20.2. The following monitoring commitments are also identified:
  - Groundwater monitoring (Nitrates, COD or BOD, Ammonia, E. coli) will be undertaken at the site of the proposed development as agreed with the EPA under the conditions of the IPPC licence.
  - Stormwater will be monitored on a quarterly basis before it enters the Drumgorey Stream.
  - Surface water monitoring (Nitrates, COD or BOD, Ammonia, E. coli) will be undertaken up-stream and down-stream of the subject site as agreed with the EPA under the conditions of the IPPC licence.
  - Q-sampling (biological sampling) will be undertaken down-stream from the site of the proposed development for a period of 3 years, or as agreed with the Planning Authority.

# 7.21. Reasoned Conclusion

7.21.1. Having regard to the examination of the environmental information contained above, and in particular, the EIAR and supplementary information provided by the developer, the reports of the Planning Authority, prescribed bodies, appellants and observers in the course of the application and appeal, it is considered that the main significant direct and indirect effects of the proposed development on the environment are, and will be mitigated as follows:

- Before mitigation, there are slight adverse impacts on human population and health due to potential impacts on ecosystem services and water supplies from poor land spreading practices. During the operational phase, there will be strict adherence to SI 605 of 2017 (as amended) with appropriate land spreading set-back distances from public and private water sources and watercourses. Slurry storage of 26+ weeks will be provided on site to ensure pig manure is spread in suitable conditions and leak-proof slurry storage tanks with leak detection facilities will be provided.
- There are potential slight adverse impacts on ground waters and surface waters at the subject site and within the study area. Standard construction and demolition measures will be implemented to control silt and sediment runoff, to avoid leakage of harmful substances and ensure the appropriate removal of contaminated soil. During the operational phase, ongoing monitoring of ground and surface waters will be undertaken, leak-proof slurry storage tanks with leak detection facilities will be implemented, land spreading will be undertaken in accordance with the requirements of SI 605 of 2017 (as amended) and the on-site wastewater treatment system will be inspected regularly.
- Before mitigation, the proposed development will increase ammonia emissions by 16% and methane and nitrous oxide emissions by 63% and 52% respectively compared to the existing pig farm. Post mitigation, the proposed development will reduce these emissions by 19%, 2% and 9% respectively compared to the existing situation.
- 7.21.2. I am, therefore, satisfied that he proposed development would not have any unacceptable direct or indirect effects on the environment.

# 8.0 Planning Assessment

# 8.1. Project Splitting / Cumulative Impacts

8.1.1. The appellants submit that the applicant has engaged in project splitting by lodging separate planning applications for the subject development and the concurrent pig

farm development at Caherbrack. It is also considered that the applicant will be enabled to engage in project splitting should the Board consider the scaled-back development proposed under the applicant's Further Information response. The appellants submit that the Board must consider the cumulative impacts of the proposed development and the concurrent pig farm application at Caherbrack pig farm, including the impacts of demolition, land spreading, traffic and impacts on Natura 2000 sites. It is also submitted that the Planning Authority did not request the applicant to consider the in-combination effects of both pig farm developments.

- 8.1.2. In response, the applicant's agent states that separate planning applications were submitted for each of the pig farm developments due to the 1.25 km separation distance arising between the sites. It is submitted that this approach does not constitute project splitting, with the cumulative effects of both developments noted to have been considered in the planning assessment for each site.
- 8.1.3. Having considered the matter at hand, I am satisfied that the applicant has not sought to engage in project splitting in this instance. The proposed pig farm development and that which is proposed at Caherbrack are located on separate sites, and I consider that the submission of individual planning applications is not unreasonable or inappropriate in this context. While I acknowledge the proposed development was reduced in scale during the planning application process, it was readvertised to the public by way of revised statutory planning notices, thus facilitating further public consultation. While the applicant has stated their future intention to reapply for planning permission for the omitted component of the development (sow housing), I note that any such proposal will be assessed by way of a separate planning application.
- 8.1.4. I am also satisfied that the cumulative impacts of the proposed development and the concurrent pig farm development at Caherbrack have been considered in the applicant's EIAR and NIS as submitted at planning application stage and revised at Further Information stage. As such, I am satisfied that the appellants' concerns in relation to these matters are unfounded.

### 8.2. Water Supply Impacts

8.2.1. The appellants submit that the applicant's right of way to the spring water source on the adjoining lands is not recorded in the Land Registry. It is also submitted that the existence of adequate water supply to serve the site has not been established and

that the proposed water use will be much greater than the identified 5,000 cubic metres given that the existing pig numbers are significantly below capacity. It is also submitted that a trial bore well which was drilled on the site does not have the benefit of planning permission. In response to the foregoing, the applicant's agent submits that the quantity of groundwater which will be used to facilitate the proposed development will not change significantly, and as such, will not adversely affect local supplies. The status of the trial bore well was confirmed in the applicant's Further Information response as discussed below.

- 8.2.2. In considering the issues which have been raised, I note that the spring water source is located outside of the red line boundary, approx. 160 m to the north-west of the northern end of the site. A right-of-way to the spring is indicated on the Site Location Map. While the appellants submit that the applicant's right of way is undocumented, in my opinion, this is not a matter for adjudication under this planning application. In this regard, I draw the Board's attention to the provisions of Section 34(13) of the Planning and Development Act, 2000 (as amended) which states that a person shall not be entitled solely by reason of a permission under this section to carry out any development.
- 8.2.3. In considering the concerns which have been raised regarding the adequacy of the water supply to serve the subject site, I note the contents of the Groundwater Abstraction Impact Assessment submitted in response to Item no. 7 of the Planning Authority's Request for Further Information. The report notes that current water demand on the site is 13,000 m<sup>3</sup>/year which has been substantially supplied from the spring source to date. The proposed development will increase water demand to 25,000 m<sup>3</sup>/year which will be used to supply the piggery, drinking water for animals and general purposes. Step tests undertaken on the site confirm that:

(1) The spring can supply the increased water demand, without impacting negatively on the unnamed stream which flows in a south-easterly direction from the spring towards the Drumgorey Stream.

(2) There are no private domestic or other industrial/agricultural abstractions located within the identified zone of contribution. Thus, there will be no impact on private domestic supplies from the proposed water abstraction.

(3) There will be no impact on public water supply.

(4) There will be no impact on the wider locally important aquifer on foot of the proposed development.

- 8.2.4. In my opinion, the applicant has clarified that the existing spring has the capacity to serve the proposed development. I also note that the Planning Authority's Water Services Department accepts the applicant's assessment of the adequacy of this water supply source.
- 8.2.5. The appellants have also queried the status of the trial bore well on the site. The applicant was requested to clarify this matter under Item No. 8 of the Request for Further Information, with confirmation provided that the well was used to investigate the feasibility of a back-up water supply and to investigate ground water conditions under the site. The applicant also confirmed that the trial bore well was never used as a water source and is now covered over and not in use. Having regard to the foregoing, I am satisfied that this matter has already been satisfactorily clarified by the applicant. I am also satisfied that there is adequate water supply to serve the proposed pig farm and that no undue impacts will arise to any other local water users on foot of the proposed development.

### 8.3. Groundwater / Surface Water Impacts

### • Groundwater Impacts

- 8.3.1. The appellants submit that the site suitability assessment shows that the groundwater vulnerability of the site varies between high and extreme, and it is likely that the proposed wastewater discharge would be directly to bedrock resulting in contamination of the underlying aquifer. It is also submitted that much of the groundwater data which is used in the EIAR is out of date, with the proposed development posing a risk to groundwater sources. It is noted that the underlying aquifer is extremely important to groundwater users in the locality and is a highly sensitive receptor at risk from land-spreading and the pig farm activities.
- 8.3.2. The appeal submission from The Concerned Residents of Touraneena & Ballinamult includes Hydrology & Hydrogeological Observations on the proposed development as prepared by Parkmore Environmental Services (Appendix III refers). A copy of this report is also appended to the appeal submission from Noel & Kathleen Reynolds. In summary, the report highlights the following concerns:

(i) Lack of up-to-date, site-specific groundwater quality data in the EIAR, despite availability of 2 water sources on site (spring source and trial borehole).

(ii) Unclear values presented in fig. 6.5 of the EIAR (groundwater results at the existing pig farm), which suggest the nitrate levels significantly exceed the guideline value.

(iii) Site-specific groundwater vulnerability assessments should be undertaken in the proposed land spreading area and slurry spreading should only occur where there is a minimum of 1 m soil cover overlying a locally important bedrock aquifer and 2 m over a regionally important bedrock aquifer.

(iv) The EPA's Pollutant Impact Potential maps have not been used to identify the highest risk areas for losses of N and P to water.

(v) Groundwater analysis undertaken in 1990 of a domestic water supply well located c. 500 m upgradient of the subject site but downgradient of land-spreading areas, indicated that the water supply was contaminated by slurry and had a high nitrate level.

- 8.3.3. In responding to the appellants' concerns in relation to potential groundwater impacts, the applicant's agent submits that:
  - There is an adequate and robust assessment of the baseline water environment in the NIS, NIS addendum and Chapter 6 of the EIAR.
  - The quantity of groundwater used on the subject site will not change significantly and therefore will not adversely affect local supplies.
  - The proposed built-to-specification concrete slurry storage tanks with leak detection facilities will improve the groundwater quality at the site, will increase the ability to monitor water quality beneath the tanks and will increase the integrity of the slurry stores compared with the existing earth banked slurry lagoons.
- 8.3.4. In considering the issues which have been raised, I acknowledge that the EIAR does not include groundwater quality data for the subject site and that the appellants have queried some of the groundwater values presented in the EIAR. While I note the presence of the spring on the adjoining land to the north-west, I note that this land is outside the applicant's control. While the applicant bored a trial well on the subject

site in August 2020, I further note that this activity post-dated the lodgement of the planning application.

- 8.3.5. Notwithstanding the foregoing, I agree that the inclusion of more recent, site-specific groundwater quality data in the EIAR would have been preferrable in this instance. However, I note that the soil conditions, groundwater vulnerability and aquifer status are largely the same at the subject site and the Caherbrack pig farm site. As such, I do not consider that the separation distance arising between the sites (1.25 km) is significant in hydrological terms. Thus, in my opinion, the use of the groundwater quality results from the Caherbrack site as representative data for groundwater conditions at the subject site can be accepted.
- 8.3.6. It is proposed to install a packaged wastewater treatment system and polishing filter approx. 15 m to the north of the existing derelict dwelling on the site (Drawing No. WTS01-001 refers). The planning application was lodged before 7<sup>th</sup> June 2021, and as such, the EPA's 2009 Code of Practice for Domestic Wastewater Treatment Systems applies. The revised Site Characterisation Form which accompanied the applicant's Further Information response identifies the underlying aquifer as being locally important and of high vulnerability. The vulnerability of the aquifer is classified as extreme in the location of the proposed wastewater percolation area. I note that bedrock or ground water were not encountered in the trial hole.
- 8.3.7. While the groundwater protection response is identified as R1 in the applicant's Site Characterisation Form, I note with reference to table B.2 of the Code of Practice that the groundwater protection response is R2. Notwithstanding the foregoing, the installation of an on-site wastewater treatment system is acceptable subject to normal good practice.
- 8.3.8. The 3 no. trial holes were excavated outside of the proposed percolation area and examined over a 48-hour period. A clay (loam) soil was recorded between a depth of 0.1 0.4 m and sand silt (coarse loamy) soil with a high percentage of sharp stones between 0.5 2.0 m. A T-test result of 15.63 was recorded, which confirms that the site is suitable for the development of a septic tank system or a secondary treatment system discharging to ground water. The applicant proposes to install a packaged wastewater treatment system and polishing filter of suitable material with a minimum thickness of 900 mm of free draining unsaturated soil between the point of infiltration and the water table. I note that the layout of the proposed wastewater treatment

system and percolation area complies with the minimum separation distances for all potential targets. I also note that the size of the percolation area (37.5 m<sup>2</sup>) complies with the requirements of table 10.1 of the Code of Practice. Having regard to the information provided with the application, I am satisfied that the proposed packaged treatment system would be acceptable for the purposes of wastewater treatment on the site and that no significant impacts would arise to the underlying aquifer.

- 8.3.9. I acknowledge the information provided by the appellants which confirms that a neighbouring domestic well was contaminated by slurry and had a high nitrate level. However, I note that this event occurred more than 30 years ago and cannot be directly linked to the pig farm activities on the subject site. As such, I consider that this matter cannot reasonably be taken into account in the adjudication of this appeal case.
- 8.3.10. In my opinion, the proposed development would serve to modernise and significantly improve the existing pig farm buildings and slurry storage facilities. As identified by the applicant, it is proposed to store slurry in purpose-built concrete storage tanks with leak detection facilities, which will increase the ability to monitor groundwater quality beneath the tanks. I agree with the applicant's agent that this arrangement will significantly increase the integrity of the slurry stores compared with the existing, earth-banked slurry lagoons. As highlighted by the applicant's agent, the development will require an IPPC license, which will include a requirement for groundwater quality monitoring. As such, I am satisfied that potential impacts to groundwater can be appropriately managed and monitored in the event the Board grants planning permission for the proposed development.

# • Surface Water Impacts

8.3.11. The appellants submit that water quality in the Drumgorey Stream has been adversely impacted by the operation of the existing pig farm, with elevated ammonia levels and excessive eutrophication downstream of both pig farms. Concerns are also expressed that the proposed water quality sampling downstream of the site would only be required for a 3-year period. It is also submitted that no surface water quality assessments have been undertaken by the Local Authority or the EPA in the Drumgorey Stream and that the quality data provided by the applicant does not reflect the historical pig numbers on the farm. It is also submitted that soiled water will discharge from the development into the Drumgorey Stream. 8.3.12. The appeal submission from The Concerned Residents of Touraneena & Ballinamult contains a report entitled 'Hydrology & Hydrogeological Observations' as prepared by Parkmore Environmental Services. This report submits the following with respect to surface water quality:

(i) Site-specific surface water assessments undertaken in the land spreading area in 2019 were undertaken after a period of low stocking numbers on both pig farms. As such, the results do not reflect historical pig numbers, or the numbers proposed and do not demonstrate that the development is currently having no negative effects on water courses.

(ii) EPA Annual Environmental returns show that 3,864 m<sup>3</sup> and 2,377 m<sup>3</sup> of slurry was produced on the site in 2018 and 2019 respectively. Thus, the Q values are not reflective of the proposed 19,500 m<sup>3</sup> of slurry which will be produced in the redeveloped farm.

(iii) No recent site-specific surface water quality samples were collected and presented in the EIAR. Water quality data presented for the Drumgorey Stream dates from 2008 to 2014, which is now 7-13 years old and may have no bearing on current baseline water quality in the river.

(iv) Q-value data presented in table 6.8 (Drumgorey Stream Parameters with River Waterbody Status 2010-2015) presents data from the Finisk River, located 170 m upstream of the confluence with the Drumgorey Stream and from the bridge upstream of Ballinamult Bridge, which is a further 830 m upstream. Neither of these sampling points is impacted by surface water from the Drumgorey Stream and as such is not representative of surface water quality downstream of the pig farms.

(v) The EIAR presents outdated/incorrect WFD data in relation to surface water 'Status' and 'Risk'. The Drumgorey Stream and Finisk River downstream of its confluence with the Drumgorey Stream have declined in quality since the WFD review and this is not acknowledged.

(vi) Site-specific water quality assessments completed in the Drumgorey Stream by Waterford County Council during  $22^{nd}$  Oct  $2020 - 26^{th}$  April 2021 indicate that the chemical status of surface water downstream of the existing pig farms is poor, with ammonium levels being 8 – 9 times more than the Surface Water Regulations 'Good' status threshold value in Feb and March 2021. Excessive plant growth in the
Drumgorey Stream downstream of the pig farms confirms the enriched nature of this surface water.

(vii) Four surface water samples were collected from the Drumgorey Stream downstream of the Caherbrack site (concurrent pig farm application) between 25<sup>th</sup> February and 22<sup>nd</sup> April 2021, with high levels of E. Coli and Enterococci detected in all samples. It is submitted that these high counts are likely related to the discharge of effluent from the pig farm site at Caherbrack.

- 8.3.13. The applicant's appeal response states that it is highly certain that the baseline environment encompasses the impacts of both pig farm sites, as these farms have been operational for more than 30 years. Therefore, it is submitted that the water quality baseline environment, supplemented by the 7 Q samples taken by Ash Ecology and Environmental in 2019, includes the impact of the existing pig farm.
- 8.3.14. In considering this issue, I note that section 6.3.3.3 of the applicant's EIAR states that there are no EPA surface water quality monitoring stations on the Drumgorey Stream. The most representative recently monitored EPA station is identified on the Finisk River at station 'Br u/s Ballinamult Bridge' which recorded a Q4 Good Status in 2018 and which has not changed since 1990. I have reviewed EPA mapping of national water monitoring station locations, and as identified by the appellants, I note that the Drumgorey Stream does not flow into the Finisk River, and as such the data which is presented for station 'Br u/s Ballinamult Bridge' is not representative of surface water quality in the vicinity of the existing pig farm. Section 6.3.3.3, Chapter 6 of the EIAR states that monitoring of the Drumgorey Stream is required at the Caherbrack pig farm site as a condition of the IPPC licence since 2008. Figure 6.13 illustrates the water analysis results for nitrates and NH<sub>3</sub> for the years 2008, 2012, 2013 and 2014, with levels noted to be generally acceptable. More recent monitoring results are not included.
- 8.3.15. I note that more recent water quality sampling was undertaken by the applicant in October 2019 and December 2019, including a location on the Drumgorey Stream approx. 53 m upstream of the confluence with the Finisk River (see EIAR, Volume 4: figure 6.11B Surface Water Baseline Environment) and downstream of the pig farm(s). This sample gave a result of 'Q4 Good Status' and it is submitted that this indicates that the existing pig farm development is currently having no negative effects on this watercourse.

- 8.3.16. In reviewing the water quality monitoring results which have been provided by the appellants, I note that 5 no. sampling points are identified. Points 1 and 2 are upstream of the subject site, while sampling point no. 3 is downstream. Sampling points 4 and 5 are downstream of the neighbouring Caherbrack pig farm. Thus, I consider sampling point 3 to be most relevant in this instance. Ammonium levels at this sampling point significantly exceeded the 'good' chemical threshold for 5 of the 7 sampling rounds, with significant exceedances recorded during February and March 2021. The most recent sampling result dated 26<sup>th</sup> April 2021 recorded ammonium levels which were significantly below the 'good' chemical threshold. Phosphate levels were recorded as having 'good' chemical status at sampling point no. 3 for all 6 sampling rounds.
- 8.3.17. The Planning Authority has not responded to the appeal submissions, and as such, has not commented on the sampling results provided by the appellants. However, I note that following the submission of the applicant's Further Information Response, the Water Services Department had no objection to the proposed development subject to conditions, including quarterly monitoring of stormwater and the Drumgorey Stream.
- 8.3.18. In reaching a conclusion on this point of appeal, I note that the proposed development includes an attenuated storm water management system which represents an improvement on the existing storm water handling system. There will be no soiled yards in the proposed development and carcasses will be stored in purpose-built sealed skips. Slurry will also be stored in leak-proof tanks, compared with the existing uncovered lagoons. I also note that pig manure take-off points will be concreted and pig walk-ways will be slatted and concreted with the run-off drained to the slurry tanks. Mitigation measures are also identified to address potential impacts to water during the construction phase. On balance, given the improvements which are proposed on the site with respect to the operation of the pig farm and surface water management, and that stormwater water and water quality within the Drumgorey Stream will be subject to monitoring, I am satisfied that potential surface water impacts can be satisfactorily addressed by way of condition should planning permission be granted in this instance.

#### 8.4. Impact on Local Community, Tourism and Local Businesses

Inspector's Report

- 8.4.1. The appellants submit that the proposed development would adversely impact on the vision of sustainable rural communities and rural tourism presented in the County Development Plan. It is also submitted that the proposed development would be inconsistent with development plan policies which promote walking and cycling in rural areas, with the proposed pig farm noted to exit onto the "Sean Kelly Legacy" cycling route. Concerns are also raised in relation to significant negative impacts on residential amenity and potential health risks to communities living close to the pig farm. It is considered that increased malodour, dust and noise impacts will threaten the attractiveness of the local community, damage local businesses dependent on tourism and significantly impair the enjoyment of local amenities such as local GAA facilities and outdoor spaces in local schools. The appellants highlight that no monitoring is proposed with the respect to dust, odour and noise arising on foot of the proposed development. The appellants also submit that the proposed development will result in a loss of local employment.
- 8.4.2. In response to the foregoing, the applicant's agent submits that local environmental emissions will be reduced, and as such, it is incorrect to state that the proposed development will have a negative impact on tourism. It is further submitted that the risks to human health which have been identified by the appellants are unsubstantiated.
- 8.4.3. In considering the potential noise impacts of the proposed development, I note that the applicant's EIAR states that noise impacts during the construction phase will not be significant at sensitive receptors due to the separation distances arising. Noise screening will be provided in the event of rock breaking during the construction phase, with adjoining landowners notified in advance. A Noise Management Programme will be implemented to control noise at the construction site. During the operational phase, the effects of noise emanating from the pig farm or land spreading will not significantly affect the wider community in the study area, including local businesses and tourist assets. The Environmental Services Department of the Planning Authority also considers that the noise impacts of the proposed development will not be significantly different to the existing operation. The applicant also commits to conditions for noise monitoring which may be required by the EPA. In my opinion, no significant noise impacts would arise to the local community, including local businesses and tourism assets, on foot of the proposed development.

- 8.4.4. In considering the potential **dust impacts** of the proposed development, I note that demolition material will be segregated and stored in skips to minimise dust production. A water tanker will douse soil during dry weather to prevent dust nuisance. During the operational phase, pigs will be fed on an automatic wet-feed system, which will reduce dust in the external environment. The proposed ventilation system includes high-powered fans, which will remove harmful concentrations of dust. The EIAR confirms that dust emissions will not change significantly from the very low levels already produced at the site. The Environmental Services Department of the Planning Authority considers that the proposed development will reduce dust impacts compared to the existing operation.
- 8.4.5. In responding to Item no. 9 of the Request for Further Information, the applicant confirms that a dust monitoring programme will be undertaken during the construction phase of the proposed development. While it is not proposed to monitor dust during the operational phase, it is acknowledged that the pig farm must apply and operate under the conditions of an EPA licence, which may include conditions relating to dust monitoring. In my opinion, no significant dust impacts would arise on foot of the proposed development.
- 8.4.6. In considering the concerns which the appellants have raised in relation to potential **odour impacts**, I refer to the EIAR odour model which uses odour impact contours to illustrate potential impacts to neighbouring residential properties. There are 8 no. occupied houses and 2 no. unoccupied houses identified within the odour limit contour for the existing pig farm. In the absence of mitigation, the baseline situation remains unchanged on foot of the proposed development. The EIAR also states that a not significant effect will arise to local dwellings and tourist assets from malodour due to land-spreading.
- 8.4.7. The applicant submits that the requirement for odour monitoring will not arise during the construction stage of the proposed development. During the operational phase, the use of a low-emission pig house design will reduce odour emissions by approx. 40%. The covering of the proposed slurry stores and the use of high-powered fans in the pig housing ventilation system will aid odour reduction and dispersion. Low protein diets, high cleanliness standards and the use of an odour management plan will also reduce odour impacts. It is proposed to store pig carcasses in purpose-built sealed skips, which will be collected every 2 weeks. The applicant commits to comply with conditions for odour monitoring which may be required by the EPA as

provided for under Section 3.3 of the odour management plan (Appendix 4, Vol. 3 of EIAR). Having regard to the foregoing, I am satisfied that no significant odour impacts would arise on foot of the proposed development.

- 8.4.8. The appellants' concerns regarding the loss of local employment are noted. However, in my opinion, the loss of 3 no. jobs across both pig farm sites would not be significant. I note that 4 no. jobs will be sustained on the subject site during the operational phase of the development, which in turn will support further employment in the wider agri-business economy. I also note that employment will be created on site during the construction phase. Having regard to the foregoing, I am satisfied that the loss of employment would not be significant in this instance.
- 8.4.9. Human health impacts arising on foot of the proposed development are considered in Chapter 3 of the EIAR (and other chapters as relevant), which states that, in the absence of mitigation, health impacts on the study area community are imperceptible due to the spread of pathogens in pig manure. The potential impact on the health of workers due to noise, dust and gas emissions is slight – moderate adverse in the absence of mitigation. A range of mitigation measures are identified during the construction phase, including, inter alia, the use of PPE for site workers, the use of noise screening in the event of rock breaking and adherence to set construction hours. Mitigation measures are also proposed during the operational phase of the proposed development, including, inter alia, low emission pig house design, low protein pig diets, high cleanliness standards, an odour management plan, application of pig manure in accordance with SI 605 of 2017, slurry storage of 30+ weeks to allow storage of manure in unsuitable weather conditions and the use of low trajectory land spreading. In my opinion, having regard to the mitigation measures which are proposed and the established nature of this agricultural activity, I am satisfied that no significant health impacts would arise on foot of the proposed development.
- 8.4.10. In conclusion, while I acknowledge that the appellants have benefitted from the reduced operation of the pig farm in recent times, I note that it is an established use in this rural location. I acknowledge that some dust, odour and noise impacts will arise to the local community on foot of the proposed development. However, I do not consider that such significant impacts would arise which would warrant the refusal of planning permission in this instance. I further note that the proposed development will require an IPPC licence from the EPA which will identify the requirement for

monitoring of environmental emissions as appropriate. Having regard to the foregoing, I am satisfied that the proposed development would not have any significant impact on the local community, local businesses and tourist assets with reference to noise, dust odour and human health impacts.

## 8.5. Site Access / Traffic Impacts

### • Site Access

- 8.5.1. The appellants submit that the pig farm access junction does not comply with Planning Authority and TII development standards for rural road layouts. The appeal submission from The Concerned Residents of Touraneena and Ballinamult includes a Roads, Traffic and Access Appraisal prepared by Malachy Walsh and Partners Engineering and Environmental Consultants, which concludes that:
  - The inadequate sight visibility splay distance from the access junction north along the R671, would increase the risk of right-turning exit vehicles pulling out into the path of southbound vehicles, resulting in potential collisions and injuries.
  - The inadequate sight stopping distance southbound along the R671 on approach to the site access could result in potential collisions between southbound vehicles on the R671 and vehicles accessing the proposed development.
  - The restrictive carriageway width of the R671 at / in the vicinity of the proposed site access junction would increase the risk of side swipe and other type collisions, resulting in material damage and potential injuries.
- 8.5.2. The appellants also submit that adverse impacts would arise on foot of the increased road traffic which would be generated by both pig farms, including that arising from land spreading, with increased risk of road traffic accidents and adverse effects on other road users, including pedestrians and cyclists.
- 8.5.3. In response to the foregoing, the applicant's agent submits that the site access will be significantly improved on foot of the proposed development and that the traffic volumes generated by both pig farms will not significantly change the total traffic on local roads. It is noted that slurry transport traffic will decrease by 14% on foot of the scaled back proposal on the subject site.

- 8.5.4. As observed during my site visit, the existing site access at the junction with the R671 is characterised by a significant downward slope. This results in significantly constrained vehicular exit movements from the site, with reduced visibility in either direction along the regional road. I note that the Planning Authority expressed serious concerns regarding the gradient of the existing access road, the unbound nature of the surface, the difference in levels between the access road and the public road, poor sightlines and traffic concerns (item nos. 4 6 of the Request for Further Information refers).
- 8.5.5. A response to these items was prepared on behalf of the applicant by Peter Bolger Consulting Engineers. The existing access road is confirmed to have a gradient of 16% at the junction approach. The applicant proposes to improve the standard and safety of the access by carrying out the works which are illustrated on Drawing No. J684-PL01-001 (Sightline Survey Local Access Road Junction with Regional Road). A dwell area with a concrete surface of at least 15 m in length and a maximum gradient of 2.5 % will be provided immediately adjacent to the public road. The level of the access road behind the dwell area will also be increased, with a maximum gradient of 10%. A concrete surface is proposed to the entrance splay area, which will finish flush with the metalled road edge and a concrete surface will be provided along the entire length of the access road. It is submitted that the proposed site access works will be undertaken in accordance with NRA/TII requirements.
- 8.5.6. Drawing No. J684-PL01-001 demonstrates that a sightline of 80 m can be achieved in a northerly direction from the site entrance, while 160 m can be achieved in a southerly direction. A swept path analysis has been provided (Drawing No. J684-PL02-001) to demonstrate that the entrance design is sufficient for heavy goods vehicles (HGVs) to perform the required turning movements when exiting the site in a northerly direction, without the wheel trail crossing the road centre line. The swept path analysis also illustrates that HGVs travelling from the north will not be impeded when travelling south and making a right turn into the proposed development. It is submitted that the proposed site access works were discussed in detail and agreed in principle with the Local Authority District Engineer prior to the submission of the Further Information response.
- 8.5.7. I note that the development management standards of the Waterford City and County Development Plan 2011-2017 (as extended) confirm that sightlines of 160 m

are required on roads with an operational speed of 80 km/hour. While I acknowledge that a reduced sightline is available in a northerly direction from the proposed site entrance, I note that the existing entrance is significantly sub-substandard and that the proposed works will improve the access arrangements. I further note that the Planning Authority Roads Department was satisfied that the concerns arising in relation to the site access had been addressed by way of the applicant's Further Information submission (District Engineer's report of 24<sup>th</sup> May 2021 refers). Thus, on balance, I consider that the proposed improvement works to the site access would be acceptable at this location.

#### • Traffic Impacts

- 8.5.8. The Planning Authority requested Further Information in relation to the traffic impacts arising on foot of the proposed development, including total movements during the construction and operational phases, the nature of all vehicle types and associated tonnages, the timescale of construction works and associated traffic data, traffic associated with the stocking and establishment of the facility and for 1 no. full operational year, and traffic management proposals to ensure no conflicts of traffic movements arise (Item no. 3 of RFI request refers).
- 8.5.9. The applicant's response to the foregoing states that the proposed development will be constructed in 7 no. phases over a period of 12-18 months. The number of trips arising and the types of vehicles which will be required in each phase are identified. Peak traffic movements according to vehicle type are also identified. The average traffic over the construction period is 28 movements per day.
- 8.5.10. The following traffic management proposals are identified during the construction phase: (1) a passing-bay will be provided on the internal access road, (2) on-site speed limit of 10km/hr to reduce noise and dust and increase traffic safety, (3) application of concrete to the access road to minimise dust and facilitate all types of traffic, (4) a flag man will be employed at the site entrance during peak concrete pouring, (5) the construction manager will sequence the arrival of concrete trucks, with other materials deliveries postponed on days of peak concrete pouring. The traffic management proposals during the operational phase of the development include: (1) the provision of a passing bay on the internal site access road, (2) proposed improvement works to the site entrance, (3) speed limit signage to reduce traffic speeds in the site.

- 8.5.11. The annual average daily traffic on the R671 is identified as 2,268 movements per day (including the existing pig farm). The traffic to the site will increase from 26 to 30 movements per day on foot of the proposed development, increasing the total traffic to 2,272 per day. Outside of the operational hours of the pig farm, there will be very little traffic to the site. Pig manure transport frequency throughout the study area will increase due to slurry volumes increasing from 8,520 m<sup>2</sup> to 10,700 m<sup>3</sup>. The cumulative effect of slurry transport movements will not increase overall when the Caherbrack pig farm site is considered, as the pig manure production from both sites will not increase. When the entire proposed traffic count of both pig farms is considered, the cumulative impact is to reduce the daily traffic count from both sites by 9, which will have a not significant effect on traffic on the R671.
- 8.5.12. I acknowledge the concerns which have been raised by the appellants concerning traffic impacts arising on foot of the proposed development, including potential impacts to motorists, cyclists and pedestrians utilising the same local road network as the proposed pig farm. However, I note that the construction phase traffic will be temporary in nature. In considering the traffic which will arise during the operational phase of the development, I note that the increase in traffic movements is not significant, increasing by just 4 no. movements per day. The existing pig farm has been operational for more than 40 years, albeit at a reduced operational level in recent years. As such, the traffic which will be generated on foot of this rurally-based enterprise, will largely reflect the existing baseline traffic volumes on the local road network.
- 8.5.13. Having regard to the foregoing, I consider that the traffic which would arise during the construction and operational phases of the development would be acceptable at this location, subject to the agreement of final traffic management proposals with the Planning Authority. This matter can be addressed by way of condition should the Board decide to grant planning permission in this instance.

#### 8.6. Climate Change Impacts

8.6.1. The appellants note that total CO<sub>2</sub> and NH<sub>3</sub> emissions from both pig farms would decrease, but express major concerns that these figures cannot be substantiated. It is submitted that the impacts of climate change must be considered when assessing the longer-term impacts of the proposed pig farm. It is further submitted that no proposals have been provided to demonstrate that the proposed development will

not add to GHGs and that An Bord Pleanála must consider the rules, responsibilities and implications of the Climate Action and Low Carbon Development (Amendment) Bill, 2021.

- 8.6.2. In responding to the grounds of appeal, the applicant's agent submits that the proposed development seeks to upgrade the existing pig farm to achieve the highest environmental and production performance standards and to ensure it conforms to any EPA licence requirements.
- 8.6.3. The climate impacts of the proposed development are considered in chapter 8 of the EIAR. Nationally, the pig sector is responsible for approx. 376 Kt CO<sub>2</sub> equivalent emissions which is approx. 2% of the national agricultural total. In the absence of mitigation, the existing GHG emissions are predicted to increase by 35%, representing 0.015% of national agricultural emissions. The unmitigated impacts would represent a not significant slight adverse impact in light of national targets to reduce GHG emissions. Approx. 20.2 tons of ammonia is produced by the existing development and 19.9 tons will be produced by the proposed pig farm without mitigation. This represents a not significant slight adverse impact in light of national emission limits for NH<sub>3</sub>. The quantities of sulphur dioxide, carbon monoxide, nonmethane volatile organic compounds and particulate matter produced will be insignificant relative to national production, and therefore without mitigation, the effects are not significant.
- 8.6.4. The EIAR includes climate impact mitigation measures during the construction phase, with respect to land spreading and with respect to emissions from the pig houses during the operational phase. Post mitigation, CH<sub>4</sub> and N<sub>2</sub>O emissions will reduce by 40% and CO<sub>2</sub> emissions by 19% compared to the existing development. In the context of total national emissions, the residual impacts of the proposed development are considered not significant. The total post mitigation emissions from the proposed development and the proposed pig farm at Caherbrack will reduce existing GHG emissions by 17%. The total post emissions from both pig farms are less than 0.02% of the national agricultural CO<sub>2</sub> and therefore the impact is not significant. A cumulative reduction of 18% in NH<sub>3</sub> emissions will also arise, with the impact on climate being not significant.
- 8.6.5. Having regard to the foregoing, I am satisfied that the climate impacts of the proposed development have been adequately addressed by the applicant. While I

acknowledge that GHG emissions will arise on foot of the proposed development, I note that these represent an improvement on those arising from the existing, operational pig farm. Post mitigation, the emissions arising on foot of the proposed development are not significant. Having regard to the foregoing, I consider that the climate impacts arising on foot of the proposed development are not significant and would not warrant a refusal of planning permission in this instance.

## 8.7. Use of BAT / BATNEEC

- 8.7.1. The appellants submit the EPA Guidance Note for the Pig Production Sector has not been adequately considered by the applicant and that BATNEEC should be required in the proposed development. The appellants also submit there is no evidence that biofiltration and/or chemical scrubbing were considered to mitigate potential threats to human health.
- 8.7.2. In response to the foregoing, the applicant's agent submits that the incorporation of BAT into the proposed development has been demonstrated in response to Item no. 8 of the Request for Further Information and in Chapter 2, Volume 2 of the EIAR. Having reviewed this material I am satisfied that this issue has been satisfactorily considered by the applicant. I further note the submissions from the EPA, which state that, in the event the Agency grants an IPPC licence for the proposed development, it will incorporate conditions to ensure appropriate national and EU standards are applied and that BAT is used in the carrying out of the pig farm activities. Having regard to the foregoing, I am satisfied that this issue has been adequately addressed by the applicant and will be managed by the EPA outside of the planning application process.

### 8.8. Appropriate Assessment (AA) Screening

- 8.8.1. The subject site is not located within or directly adjoining any Natura 2000 site. Therefore, there is no potential for **direct impacts** on any such site to occur. The proposed development is not an ex-situ site for any Qualifying Interest/Special Conservation Interest populations of any European sites.
- 8.8.2. The applicant's AA screening report notes that there are no SPAs within 15 km of the subject site. The screening report identifies 4 no. SACs within 15 km as follows:
  - Blackwater River (Cork/Waterford) SAC (site code: 002170) located approx.
     2 km to the south-west of the subject site at its closest point.

- Lower River Suir SAC (site code: 002137) located approx. 4 km to the north of the subject site at its closest point.
- Nier Valley Woodlands SAC (site code: 000668) located approx. 4 km to the north-east of the subject site at its closest point.
- Comeragh Mountains SAC (site code: 001952) located approx. 6.6 km to the east of the subject site at its closest point.
- 8.8.3. In addition to the foregoing, I note that Blackwater River (Cork/Waterford) SAC is connected to Blackwater Estuary SPA (site code: 004028) at its southern-most extent, approx. 25 km to the south-west of the site. In my opinion, this Natura 2000 site should also be screened in for assessment.
- 8.8.4. The subject site is hydrologically connected to Blackwater River (Cork/Waterford) SAC via site drainage to the unnamed stream which extends in a south-easterly direction from the spring source adjoining the site. This unnamed stream subsequently joins the Drumgorey Stream, which in turn flows into the Finisk River which forms part of the Blackwater River (Cork/Waterford) SAC. In considering the potential for **indirect effects** to occur to this site, I note that the proposed development has the potential to result in deterioration of water quality downstream, through increased silt levels in surface water run-off and the inadvertent spillage of pollutants from fuels and hydraulic fluid which could introduce toxic chemicals to the aquatic environment via surface-water run-off or groundwater contamination. The storage of pig manure also has the potential to impact on surface and groundwater. In the absence of mitigation, such impacts could affect aquatic fish and plant species and have negative impacts on groundwater. The Finisk River could also be affected by invasive species if introduced to the subject site during the construction and operational phases. As such, the proposed development has the potential to have likely, significant indirect effects on Blackwater River (Cork/Waterford) SAC, and therefore the carrying out of an Appropriate Assessment is required.
- 8.8.5. Blackwater River (Cork/Waterford) SAC is connected to Blackwater Estuary SPA (site code: 004028) at its southern-most extent, approx. 25 km to the south-west of the subject site. The qualifying interests and conservation objectives for this site are set out in Appendix 1 of this report. In applying the 'source-path-receptor' model in respect of potential indirect effects and having considered the relevant conservation objectives and qualifying interests, I consider that Blackwater Estuary SPA can be

screened out from further assessment at the preliminary stage based on a combination of factors including the intervening minimum distances, the nature of the qualifying interests of this European site, the nature and scale of the proposed development and the likely emissions arising.

- 8.8.6. The study area of the proposed spread lands encompasses 55 townlands in the wider vicinity of the subject site. The applicant has provided maps (figures E-I which accompany the Further Information Response) to illustrate the locations where the pig manure spread lands overlap Natura 2000 sites. These include Comeragh Mountains SAC, Nier Valley Woodlands SAC, Lower River Suir SAC and Blackwater River (Cork/Waterford) SAC.
- 8.8.7. While the applicant's agent has identified exclusion zones within these designated areas where land spreading will not occur, in applying the 'source-path-receptor' model, I consider that the proposed land spreading activity has the potential to cause diffuse pollution resulting in deterioration of water quality through surface water runoff and to affect groundwater supplies. As such, I consider that the proposed development has the potential to have indirect effects on these designated sites, which should also be screened in for Appropriate Assessment.

### 8.9. Appropriate Assessment (AA)

- 8.9.1. The proposed pig farm development is not located within and does not adjoin Blackwater River (Cork/Waterford) SAC, Comeragh Mountains SAC, Nier Valley Woodlands SAC or Lower River Suir SAC, and as such, there is no potential for direct effects to occur to the qualifying interests of any of these designated sites during the construction or operational phases of the development.
- 8.9.2. The site of the proposed pig farm is hydrologically connected to Blackwater River (Cork/Waterford) SAC, and as such, has the potential to have **indirect effects** as follows: (i) a potential pollution event during the construction or operational phases may release suspended solids into the unnamed stream which extends from the spring source adjoining the site, and which in turn, connects with the Drumgorey

Stream, the Finisk River and the SAC; (ii) the introduction and spread of an invasive species may be facilitated via construction machinery or materials and may spread to the SAC via site drainage, and (iii) potential surface and groundwater pollution impacts from the inappropriate storage/leakage of pig manure.

8.9.3. The conservation objectives and qualifying interests of Blackwater River (Cork/Waterford) SAC are set out in the following table.

Blackwater River (Cork/Waterford) SAC (Site Code: 002170)	
Conservation Objectives	1029 - To restore the favourable conservation condition of the Freshwater Pearl Mussel
	1092 - To maintain the favourable conservation condition of White-clawed Crayfish
	1095 - To restore the favourable conservation condition of Sea Lamprey
	1096 - To maintain the favourable conservation condition of Brook Lamprey
	1099 - To maintain the favourable conservation condition of River Lamprey
	1103 - To restore the favourable conservation condition of Twaite Shad
	1106 - To maintain the favourable conservation condition of Atlantic Salmon
	1130 - To maintain the favourable conservation condition of Estuaries
	1140 - To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide
	1220 - To maintain the favourable conservation condition of Perennial vegetation of stony banks
	1310 - To maintain the favourable conservation condition of Salicornia and other annuals colonizing mud and sand
	1330 - To restore the favourable conservation condition of Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
	1355- To restore the favourable conservation condition of Otter

	<ul> <li>1410 - To maintain the favourable conservation condition of Mediterranean salt meadows (Juncetalia maritimi)</li> <li>1421 - To maintain the favourable conservation condition of Killarney Fern</li> </ul>
	3260 - To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
	91A0 - To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum
	91E0 - To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)
Qualifying	1029 Freshwater Pearl Mussel Margaritifera margaritifera
Interests	1092 White-clawed Crayfish Austropotamobius pallipes
	1095 Sea Lamprey Petromyzon marinus
	1096 Brook Lamprey Lampetra planeri
	1099 River Lamprey Lampetra fluviatilis
	1103 Twaite Shad Alosa fallax
	1106 Atlantic Salmon Salmo salar (only in fresh water)
	1130 Estuaries
	1140 Mudflats and sandflats not covered by seawater at low tide
	1220 Perennial vegetation of stony banks
	1310 Salicornia and other annuals colonizing mud and sand
	1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
	1355 Otter Lutra lutra
	1410 Mediterranean salt meadows (Juncetalia maritimi)
	1421 Killarney Fern Trichomanes speciosum
	3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation

91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles
91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)
91J0 *Taxus baccata woods of the British Isles (status under review)

- 8.9.4. The proposed spreading of pig manure also has the potential to have in-direct effects on the identified spread lands, which in certain identified locations, overlap with the following Natura 2000 sites: Comeragh Mountains SAC, Nier Valley Woodlands SAC, Lower River Suir SAC and Blackwater River (Cork/Waterford) SAC. The proposed spreading of pig manure also has the potential to have incombination effects with the proposed spreading of pig manure from the proposed development at Caherbrack pig farm, with a combined volume of 19,500 m<sup>3</sup> manure arising. These impacts include the increased nutrient content of the spread lands, thus potentially increasing N and P leaching to aquifers and impacts on surface water quality arising from run-off from the spread lands. The risks to groundwaters mainly arise from the misuse of pig manure, poor land spreading practices and non-adherence to SI 605 of 2017 (as amended).
- 8.9.5. The conservation objectives and qualifying interests of Comeragh Mountains SAC, Nier Valley Woodlands SAC and Lower River Suir SAC are set out in the following tables.

Lower River Suir SAC (Site Code: 002137)	
Conservation Objectives	1330 - To restore the favourable conservation condition of Atlantic salt meadows (GlaucoPuccinellietalia maritimae).
	1410 - To restore the favourable conservation condition of Mediterranean salt meadows (Juncetalia maritimi).
	3260- To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.
	6430 - To maintain the favourable conservation condition of Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.

	91A0 - To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles.
	91E0 - To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*.
	91J0 - To restore the favourable conservation condition of Taxus baccata woods of the British Isles*.
	1029 - To restore the favourable conservation condition of Freshwater Pearl Mussel.
	1092 - To maintain the favourable conservation condition of White-clawed Crayfish.
	1095 - To restore the favourable conservation condition of Sea Lamprey.
	1096 - To restore the favourable conservation condition of Brook Lamprey.
	1099 - To restore the favourable conservation condition of River Lamprey.
	1103 - To restore the favourable conservation condition of Twaite Shad.
	1106 - To restore the favourable conservation condition of Atlantic Salmon.
	1355 - To maintain the favourable conservation condition of Otter
Qualifying	1029 Freshwater Pearl Mussel Margaritifera margaritifera
Interests	1092 White-clawed Crayfish Austropotamobius pallipes
	1095 Sea Lamprey Petromyzon marinus 1096 Brook Lamprey Lampetra planeri
	1099 River Lamprey Lampetra fluviatilis
	1103 Twaite Shad Alosa fallax fallax
	1106 Salmon Salmo salar 1330 Atlantic salt meadows
	(Glauco-Puccinellietalia maritimae)
	1355 Otter Lutra lutra

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 llex 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

Nier Valley Woodlands SAC (Site Code: 000668)		
Conservation Objectives	91A0 - To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Nier Valley Woodlands SAC.	
Qualifying Interests	91A0 Old sessile oak woods with llex and Blechnum in the British Isles	

Comeragh Mountains SAC (Site Code: 001952)	
Conservation Objectives	<ul> <li>3110 - To maintain the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)</li> <li>3260 - To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion</li> </ul>
	fluitantis and Callitricho-Batrachion Vegetation

	4010 - To restore the favourable conservation condition of Northern Atlantic wet heaths with Erica tetralix
	4030 - To restore the favourable conservation condition of European dry heaths
	4060 - To restore the favourable conservation condition of Alpine and Boreal heaths
	7130 - To restore the favourable conservation condition of Blanket bogs (* if active bog)
	8110 - To restore the favourable conservation condition of Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)
	8210 - To restore the favourable conservation condition of Calcareous rocky slopes with chasmophytic vegetation
	8220 - To restore the favourable conservation condition of Siliceous rocky slopes with chasmophytic vegetation
	6216 - To restore the favourable conservation condition of Slender Green feather-moss (Hamatocaulis vernicosus)
Qualifying Interests	3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)
	3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
	4010 Northern Atlantic wet heaths with Erica tetralix
	4030 European dry heaths
	4060 Alpine and Boreal heaths
	6216 Slender Green Feather-moss Hamatocaulis vernicosus
	7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)
	8210 Calcareous rocky slopes with chasmophytic vegetation
	8220 Siliceous rocky slopes with chasmophytic vegetation

8.16.1. The following **mitigation measures** are proposed in relation to the **proposed pig farm development**. I note that the applicant's NIS does not categorise the identified measures according to the operational or construction phases of the proposed development.

- The proposed works will occur away from drainage ditches/watercourses and appropriate precautionary measures to prevent water pollution to the existing drainage network will be implemented.
- Best practice guidelines will be adhered to including "Control of Water Pollution from Construction, Guidance for Consultants and Contractors" and Inland Fisheries Guidelines (2016).
- All refuelling of plant equipment will not take place within 10 m of any watercourses/drainage ditches.
- Avoidance of extreme wet weather conditions during all site works.
- Eroded sediments will be retained at the impacted area, with soil exposure limited during excavation works and soils stabilised to prevent run-off of silt.
- Temporary stockpiled material will be covered to prevent run-off.
- A lined and watertight skip, located at least 10 m from the adjoining stream, is to be used as the only area on site where concrete activities are permitted to wash out, including mixers, barrows and rakes. When ready-made concrete is used, the drum of delivery lorries will return for washout to the batching plant, with only chutes washed out on site.
- Wash down water from exposed aggregate surfaces, cast-in-place concrete and from concrete trucks will be trapped on site to allow sediment to settle out and reach neutral pH before clarified water is allowed to percolate into the ground.
- Fuelling and lubrication of equipment will be carried out off-site or in bunded areas.
- Fuels, lubricants and hydraulic fluids for equipment used in construction will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to current best practice.

- Any spillage of fuels, lubricants and hydraulic oils will be immediately contained, and the contaminated soil removed from the construction site and disposed in accordance with all relevant waste management legislation.
- No vehicle or equipment maintenance work will take place in the construction site.
- Prior to any work commencing, all construction equipment will be checked to ensure that it is mechanically sound, to avoid leaks of oil, fuel, hydraulic fluids and grease.
- Measures will be introduced to minimise waste and ensure correct handling, storage and disposal of waste.
- Emergency response procedures will be put in place.
- Sediment control facilities will be regularly inspected and maintained, and any build-up of sediment cleaned regularly, ensuring only clean, uncontaminated storm water shall be discharged to the drainage system.
- Adherence to SI 605 of 2017 (as amended) with respect to on-site storage of slurry.
- The construction methodology shall follow best practice guidance to prevent the introduction of invasive species to the site.
- Site clearance to be carried out from the centre outwards to allow small mammals to escape.
- All hedgerows and mature trees to be retained where possible. Any planting of new trees should use native Irish tree species.
- Any mature trees that need to be felled for health and safety reasons should be left idle for 24 hours to allow any bats to escape during the evening.
- No tree felling or removal of hedgerows between 1<sup>st</sup> March and 31<sup>st</sup> August (bird nesting season).
- Environmental noise arising during construction shall be controlled in accordance with BS5228.
- 8.16.2. The following **mitigation measures** are proposed for **land spreading** during the **operational phase**:

- The pig farm management will use a collaborative approach with customer farmers to encourage and ensure best practices are adhered to when land spreading.
- Slurry spreading equipment will be monitored by the pig farm to ensure farmers do not use leaking equipment for spreading pig manure.
- There will be more than 30 weeks manure storage on site, which will allow manure to be spread at suitable times of the year.
- Reduced protein in pig diets will reduce the level of nitrogen in the manure, thereby reducing potential NO<sub>3</sub> leaching.
- Adherence to application rates specified in SI 605 of 2017 (as amended).
- Maintenance of a manure register to monitor movements of slurry. The register will be available for inspection by the EPA and records will be sent to the DAFM each year.
- Monitoring by pig farm management of the localities where manure is spread to ensure environmental nuisance is not being caused.
- A buffer zone of 25 m around all private wells, 200 m around public water sources and 15 m around karst features to protect groundwaters.
- Organic manures will not be spread between 15<sup>th</sup> October and 12<sup>th</sup> January.
- Not using upward-facing splash plate or sludge irrigator on a tanker or umbilical system for spreading organic fertiliser or soiled water.
- Not spreading from a roadway or passageway.
- Not spreading when land is waterlogged, frozen, covered with snow, flooded or likely to flood, heavy rainfall is forecast within 48 hours, or on steeply sloping ground.
- Where the slope towards a surface watercourse exceeds 10% a buffer zone of 10 m is required.
- 5m buffer zone for other water courses, increasing to 10 m for a period of 2 weeks preceding and 2 weeks following the periods when the application of fertilisers to land is prohibited as per Schedule 4 of the Regulations.

- Exclusion of SAC designated areas from land spreading areas.
- 8.16.3. The appellants have raised numerous concerns in relation to the potential impact of the proposed development and land spreading on Natura 2000 sites. These concerns are summarised as follows:
  - The cumulative impact of the proposed development and the concurrent application for a pig farm development at Caherbrack on Natura 2000 sites must be taken into consideration.
  - The land-spreading of pig slurry is an intrinsic part of the project for which planning permission is being sought and was not considered in the applicant's NIS.
  - The proposed land spreading areas are hydrologically connected to Natura 2000 sites.
  - There is a high risk that the proposed farm activities and land spreading could negatively impact downstream water bodies and their qualifying interests, including the freshwater pearl mussel.
  - The NIS fails to establish a baseline for soil conditions in the proposed land spreading area and relies on assumptions that slurry spreading to date has not caused any adverse effects and those farmers receiving the slurry have, and would continue to spread it using best available methods.
  - The NIS relies on but does not contain compliance with the Nitrates
    Regulations as mitigation for the spreading of slurry. Water catchments along
    the south/south-east coasts are of concern with respect to elevated nitrogen
    concentrations, including the Blackwater and Suir catchments.
  - The NIS contains lacuna and is not complete as it did not cover the spreading of slurry and emission of ammonia.
- 8.16.4. The Hydrology & Hydrogeological Observations on the proposed development as prepared by Parkmore Environmental Services submits that: (i) a 4 km stretch of the River Finisk SAC forms a boundary with the proposed land spreading area and that 30% of the total proposed land spreading area, including both pig farm sites, drains to the SAC, (ii) a 2km stretch of the Nier River SAC forms a boundary with the proposed land spreading area to the north, while a further 4 km stretch of the river

flows through the middle of the proposed land spreading area, and (iii) a portion of the proposed land spreading area is bound by the Nier Valley Woodlands SAC.

- 8.16.5. It is submitted that the pig farms and land spreading areas are hydraulically connected to the downstream SACs and there is a high risk that on farm activities and runoff from land-spreading areas could negatively impact the downstream water bodies and their qualifying interests, including the freshwater pearl mussel.
- 8.16.6. In response to the concerns which have been raised regarding potential landspreading impacts, the applicant's agent submits that:
  - Areas of unsuitable land for land spreading have been excluded houses, buffers around houses, public and private roads, scrub, woodland, areas with rock close to the surface, buffer zones along water courses and public water supplies, zones of contribution to public water supplies.
  - The GIS data in relation to soil vulnerability has been mapped, with 2.2% of the land spreading area being of extreme and high vulnerability over regionally important aquifers. It is submitted that these results provide a high degree of certainty that impacts on water will not be significant, particularly as hydraulic loading from pig manure will be reduced by 14%.
  - Teagasc Soils information confirms that the land within the study area is suitable for the application of slurry and has adequate infiltration rates.
  - The baseline water environment assessment includes the impact of the existing pig farms. The volume of slurry generated from both pig farm sites will not change significantly, and as such, the hydraulic loading of the proposed slurry will not change significantly.
  - The proposed development of both pig farms, including land spreading, will reduce NH<sub>3</sub> emissions by 18% compared with the existing situation. With mitigation, there is a high degree of certainty that aerial deposition of NH<sub>3</sub> in the study area would increase by less than 2% of the baseline study area deposition rates, which is an insignificant increase.
- 8.16.7. The applicant's NIS has considered the cumulative, in-combination impact of land spreading arising from the subject site and the proposed Caherbrack pig farm. Other poultry houses and pig farms outside the study area are considered remote enough to not cause significant cumulative effects.

- 8.16.8. The cumulative, in-combination impact of land spreading is considered with respect to potential impacts on groundwater, surface water and the aerial deposition of ammonia across the identified spread lands, comprising a gross area of 9,768 ha. In two instances only, the applicant's NIS concludes that "there are no predicted in-combination effects from run-off of slurry on spread lands and potential risk to water quality and associated qualifying interest species in the catchments of the Lower River Suir and River Blackwater SACs i.e. Lamprey, Salmon, Twaite Shad, Otter and Crayfish" (section 4.4.4 In-Combination Conclusions refers). I note that Section 4.6 of the applicant's amended NIS (as submitted at Further Information stage) concludes that "the proposed works will not cause adverse impacts to the Natura 2000 sites listed below: Blackwater River (Cork/Waterford), Lower River Suir, Nier Valley Woodlands, Comeragh Mountains, Dungarvan Harbour". I note that Section statement or NIS.
- 8.16.9. I consider that the applicant's NIS does not provide a comprehensive assessment of the potential for the proposed development, and in particular the proposed land spreading of pig manure, to result in likely, significant effects on the Natura 2000 sites which fall within the identified slurry spreading study area. In my opinion, the information which has been presented is generic in nature, with no systematic analysis undertaken of the potential for impacts to arise to the qualifying interests and conservation objectives of the identified designated sites within the zone of impact.
- 8.16.10. In my opinion, it is not possible to examine and evaluate the potential effects of the proposed development on Natura 2000 sites based on the best scientific knowledge in the field, and as such, it is not possible to determine whether or not the project would adversely affect the integrity of Blackwater River (Cork/Waterford) SAC (site code: 002170), Nier Valley Woodlands SAC (site code: 000668), Lower River Suir SAC (site code: 002137) and Comeragh Mountains SAC (site code: 001952), either individually or in combination with other plans and projects, in view of the sites' conservation objectives. As such, I consider that planning permission should be refused on this basis.

# 9.0 **Recommendation**

9.1. I recommend that planning permission be refused for the proposed development.

# 10.0 Reasons and Considerations

10.1. On the basis of the information provided with the application and appeal, including the Natura Impact Statement, and in light of the assessment carried out above, the Board is not satisfied that the proposed development individually, or in combination with other plans or projects, would not adversely affect the integrity of European sites Blackwater River (Cork/Waterford) SAC (site code: 002170), Nier Valley Woodlands SAC (site code: 000668), Lower River Suir SAC (site code: 002137) and Comeragh Mountains SAC (site code: 001952), in view of the site's Conservation Objectives. In such circumstances, the Board is precluded from granting permission.

Louise Treacy Planning Inspector

26<sup>th</sup> May 2022

# Appendix 1: Conservation Objectives & Qualifying Interests of Blackwater Estuary SPA

Blackwater Estuary SPA (Site Code: 004028)	
Conservation Objectives	A050 - To maintain the favourable conservation condition of Wigeon
	A140 - To maintain the favourable conservation condition of Golden Plover
	A142 - To maintain the favourable conservation condition of Lapwing
	A149 - To maintain the favourable conservation condition of Dunlin
	A156 - To maintain the favourable conservation condition of Black-tailed Godwit
	A157 - To maintain the favourable conservation condition of Bar- tailed Godwit
	A160 - To maintain the favourable conservation condition of Curlew
	A162 - To maintain the favourable conservation condition of Redshank
	A999 - To maintain the favourable conservation condition of the wetland habitat

Qualifying Interests	A050 Wigeon Anas penelope (wintering) A140 Golden Plover Pluvialis apricaria (wintering) A142 Lapwing Vanellus vanellus (wintering)
	A149 Dunlin Calidris alpina (wintering)
	A156 Black-tailed Godwit Limosa limosa (wintering)
	A157 Bar-tailed Godwit Limosa lapponica (wintering)
	A160 Curlew Numenius arquata (wintering)
	A162 Redshank Tringa tetanus (wintering)
	A999 Wetlands