CLW Environmental Planners Ltd.

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Office of Environmental Sustainability,
Environmental Protection Agency,
P.O. Box 3000,
Johnstown Castle Estate,
Co. Wexford

24th August 2023

Re: Ashleigh Farms (Waterford) Limited.
Licence Application
Ref. P0447-02

Dear Sir/Madame,

I refer to your correspondence of 23rd June last in relation to our client, Ashleigh Farms Ltd. Please find detailed below the response to the issues raised.

1. **The response dated 16 December 2022 proposes a number of weaners which is significantly less than that initially proposed and less even than that currently licensed. It is noted that increasing the licensed capacity due to improved production efficiency was a key reason for seeking the licence review.**

   Clarify what capacity for weaners is being proposed. Where this number differs significantly from weaner to sow ratios observed on similar installations, provide an explanation as to why this is so.

   The number of weaners proposed is as per correspondence of 16th December last.

   Weaner numbers have been revised to reflect capacity ion the farm and the definition as used by the Agency. In this regard any pigs previously referred to as weaners that were over 30kg are now referred to as production pigs. Any variation in numbers is due to this re-categorisation.

   Forthwith the licence review is to accommodate only;

   a) **The amendment to site boundary to incorporate all structures associated with the licensable activity.**

   b) **The integration of the AD plant into the on-site activity.**

   c) **The installation of the proposed fallen animal thermal treatment unit.**

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2. **Further to the above request, where the proposed pig numbers differ from those stated in the response dated 16 December 2022:**
   a. **Amend the odour assessment/modelling as required.**
   b. **Demonstrate that the installation has planning to operate at the proposed scale (where numbers above those currently licensed are proposed).**

   Proposed stock numbers are as detailed in correspondence dated 16/12/2022. Stock numbers as proposed are unchanged from existing licensed numbers, however weaner pigs > 30 Kg, have been re-categorised, in line with current E.P.A. / legislative terminology, to production pigs, as detailed in correspondence dated 16/12/2022.

3. **Propose a new stormwater sampling point such that it will be downstream of the new overground slurry storage tank and AD plant and any other potential sources of contamination.**
   Same is to be submitted under separate cover.

4. **The submitted site plan has a red line indicating the site boundary and an additional red line around the new aboveground slurry storage tank and AD plant. Submit a new site plan on which the proposed site boundary is clearly delineated, and which does not contain similarly coloured lines which may make the proposed site boundary unclear.**
   Same is to be submitted under separate cover.

5. **Submit an updated EIAR which includes an assessment of the environmental impacts of the installation at the scale at which it is proposed to operate, the AD plant, and the carcass incinerator.**

   Given that there are no proposed changes to stock numbers a revised EIAR is not required. It is also our understanding that the AD plant and carcass thermal treatment unit are not activities that require EIA in their own right. Notwithstanding same the potential environmental impact of same has been considered.

   The AD plant at this farm is essentially an added value plant designed and operated with the purpose of upgrading the fertiliser destined to the customer farmers (more available nutrients and reduced odour) , the by-product of which is energy/heat to offset the farms imported energy requirement and environmental footprint. No external feedstocks are imported into the site to be used in the AD plant. The AD plant and thermal treatment unit will operate under DAFM certification/permits.

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A description of the aspects of the environment likely to be significantly affected by the proposed development.

It is envisaged that no aspects of the environment will be significantly affected by this development. The potential effects on the environment may be subdivided into effects on population and human health, bio-diversity (flora and fauna), land and soil, water, air, the landscape and material assets including archaeological heritage. There is no known potential for any adverse issues in relation to architectural or cultural heritage.

- ***Effect on Population and human health***

The development is a small scale, farm anaerobic digestion plant, is small by current industry standards but it would add to the economic activity on the farm, with consequent "trickle down" positive effect in the region and the local community, thus helping to stabilise the population of the local area.

Significant effects on population / human heath and/or human beings are not anticipated. With the exception of one farmer (who utilises pig manure from this farm and will benefit from the significant odour reduction associated with spreading digestate, instead of un-digested slurry) there are no third party dwellings close (i.e. within c.340 metres) of the proposed development as to be adversely affected by, or experience significant impairment of amenity due to the proposed development.

The proposed development is unlikely to generate or release sounds or odours that will significantly impair amenity beyond the site boundary. The experience of this and other similar sites indicates that the legal limits for such emissions, 55db daytime and 45db night-time are highly unlikely to be exceeded beyond the site boundary.

There are no processes proposed which will constantly or regularly release odorous emissions from the site at nuisance levels. Fugitive odour emissions at the site will not be significant and will be limited to times at which animals/manure are being removed from the site. In so far as is possible odour emission is to be managed so as to occur at times when the effect within the site or outside it will be minimal, and the operation of the Anaerobic Digestion facility is anticipated to significantly reduce odours both on site, and during the application of organic fertiliser by customer farmers.

The thermal treatment of fallen stock on site is primarily to improve bio-security on the farm and treat fallen stock as soon as possible. Same will reduce the need for collections from the site. This will be carried out in accordance with DAFM CN34 (Copy enclosed) as my be updated. The capacity of the proposed plant will be <50 Kg/hr.

The existing farm and site of the proposed development are not located close to and/or likely to adversely impact on any amenity or other such areas Based on experience at similar sites elsewhere in the country significant effects are not anticipated.

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- ***Effect on Bio-diversity (flora and fauna)***

The site of the development is on, and/or, immediately adjacent to an existing pig farmyard area. The flora and fauna around the site has developed in this context. The area developed is relatively small and represents an extension to existing site / farm buildings. Ground works and land profiling were kept to a minimum outside the footprint of the proposed site.

The development is not near to or likely to adversely impact on any amenity areas or views from scenic routes. Structures and new paved surfaces cover a significant fraction of the site. The changes will affect such a small area that any impact will be close to zero or neutral with the local area. The site is not located close to and/or likely to adversely impact on any Natura 2000sites.

A rodent control programme in line with DAFM and Bord Bia requirements will be developed for the operation on the AD Facility. Detailed records regarding bait point location, frequency of baiting and products used are to be maintained on site. No other pests will be attracted to the site due to the proper storage and disposal of all wastes, proper storage of all feedstuffs and maintaining the houses and external areas in a clean and tidy manner.

Weed control will be carried out around the site as required to reduce any cover for pests. It is considered that the development, managed as is proposed, which operates and will have to operate under DAFM and/or Bord Bia regulations, will have no measurable impact on either flora or fauna outside the site boundary.

- ***Effect on Land and Soil***

The structures proposed for the site were constructed on land that is immediately adjacent to the existing farmyard. There is no significant potential for any effect on soil, outside of the development area, and any land take required to facilitate the proposed development was minor in terms of the applicants landholding and the wider agricultural area.

If anything there is the potential for some positive benefits on soil on the customer farmer's lands as a result of the production of an improved organic fertiliser by the proposed development. Such organic fertiliser provides a valuable addition to the soil adding nutrients not generally found in chemical fertiliser. Organic matter in soils is generally in decline, particularly on tillage farms and the use of an organic fertiliser is preferable to chemical fertiliser in maintaining adequate organic matter levels in soils. All organic fertiliser is destined for customer farmers for use as organic fertiliser in accordance with S.I. 113 of 2022 in response to demand, and similar to the traditional practice associated with undigested pig manure. The AD plant will / has not increase organic fertilizer volume and/or total available nutrients.

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The impact of the proposed development will not lead to the production of additional input / animal by-product material as the feedstock requirements for the Anaerobic Digestor is limited to the existing pig manure produced on the farm and will not result in any additional environmental impacts. The applicant has a significant customer base for his existing pig manure / digestate supply.

With regard to indirect or cumulative impacts arising from the utilisation of digestate there are a number of issues of relevance. Firstly, similar to the situation with feedstock, the digestate produced from the anaerobic digestion process will be suitable to be used as fertiliser on agricultural lands, in line with the requirements of S.I. 113 of 2022. While the utilisation of digestate (as a substitute for existing organic or chemical fertilisers is similar to the current practice where pig manure is used) could have a perceived negative indirect impact, for example on air quality, the likely impacts arising from utilisation of digestate are significantly less significant than those arising from the traditional practice (i.e. application of slurry / manure).

Specifically, nutrients in the digestate are more freely available for plant uptake leading to improved recycling of nutrients in the environment and the anaerobic digestion process would significantly reduce potential odour pollution.

The impact of the development on feedstock materials will not lead to an increase in the production of feedstock for the project (i.e. no increase in existing pig manure production). The development is not likely to result in any significant additional environmental impacts. The applicant has a significant customer base for his existing pig manure supply, and the digestate (containing essentially the same nutrients) will be allocated to these customer farms.

Similar to the practice with pig manure / organic fertiliser records, commonly referred to as the Record 3, the applicant is proposing to keep a detailed register of;

- Customer farmers who are supplied with digestate from the AD facility, (in lieu to the traditional supply of pig manure). Same is to be recorded as per current practice on the pig farm as per the online record 3 forms.

- ***Effect on Geological & Geomorphological heritage of the area.***

The structures were constructed on land that is immediately adjacent to the existing farmyard complex. There is no significant potential for any effect outside of the development area. Given this location adjacent to existing farm structures the proposed development will not have any adverse impact on the geology of the area. In addition as the proposed development is integrated into the existing farmyard site the development has not had any adverse impact on the landscape and/ or the geomorphological heritage of the area.

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- **Effect on Water**

Adverse effect on *ground water* from the proposed development should be nil, as there will be no process discharge to ground and minimal risk of accidental leakage or spillage of polluting liquid on the site. The proposed development will be carried out with purposely designed storage tanks completed to D.A.F.M. specifications with proper storm and soiled water separation and collection facilities. As previously detailed the AD facility will utilise only existing pig manure produced on the site and no additional feed stock will be imported onto the site. There will ne no increase in the volume of organic fertiliser produced on the site.

In order to avoid any reductions in water quality in the area surrounding the proposed development and in order to protect any designated sites, designated species and sensitive surface/ground waters, in the general area of the development and/or further afield, a number of mitigation measures have been implemented, and/or planned for, that will help to protect the local biodiversity of the surrounding area and to ensure the protection of local wildlife.

➢ ***During Construction***

- It is vital that there is no deterioration in water quality in the watercourses in the vicinity of the development. This will protect both habitats and species that are sensitive to pollution. Therefore, strict controls of erosion, sediment generation and other pollutants associated with the construction process to be implemented. No development works to take place near to any watercourse.
- Surface water run-off from the site should be routed to the watercourses via suitably designed and sited settlement areas/filter channels.
- Fuels, oils, greases and hydraulic fluids will be stored in bunded areas well away from drains. Refuelling of machinery, etc., to be carried out in bunded areas.
- Stockpile areas for sands/gravel will be kept to a minimum size, well away from the drains.
- There will be no disturbance to the banks or habitats along local watercourses.
- Any excavated soil from site development works will be used within the site/landholding. Its use will not lead to the loss or damage of any natural or semi-natural habitats elsewhere and will not be spread close to any local watercourse.
- All hedgerows, not directly impacted by the proposed development, should be protected and maintained.
- Any landscaping should involve the planting of native Irish species that are indigenous to the site. The characteristics of newly planted hedgerows should mimic those in the surrounding area.
- Site preparation and construction should adhere to best practice.
- Any bulk fuel storage tank or fuel storage area should be properly bunded with a bund capacity of at least 110% or that of the fuel tank.
- All proposed development works to be in accordance with the Department of Agriculture, Food and Marine Minimum Specifications and/or industry standards.

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- ***During Operation***

- All activities on site to be carried out in accordance with the Department of Agriculture, Food and Marine, Bord Bia, EPA and local Co. Co. requirements and specifications and/or industry standards
- All digestate generated on site to be allocated to customer farmers and utilised in accordance with the requirements of S.I. 113 of 2022.
- All potentially polluting products (fuels, detergents etc.) to be stored in appropriately bunded areas.
- Stormwater discharge points to be checked and inspected on a weekly basis for any sign of contamination.
- Appropriate measures to be put in place to deal with any accidents etc. that have the potential to cause adverse environmental impact.

- ***Effect on Air***

The potential effects of the development on air relate to the odour emissions that may be associated with the operation of the Anaerobic Digestion facility. Given the location of the closest third party residences at c. >200m odorous emissions from the proposed site as a whole are not likely to cause nuisance or impair amenity beyond the site boundary, with the possible exception of times when animals and/or manure is being removed from the site.

The anaerobic digestion facility;

- has the potential to reduce odours form the pig farm, as organic fertiliser is to be transferred from the pig houses to outside covered storage.
- Will reduce odours from the application of organic fertiliser to land, as the anaerobic digestion process significantly reduces odours compared to the raw pig manure.

A number of management practices will be implemented on site / in the pig farm so as to minimise potential odour emissions from the existing and proposed developments,

Management of operations on the site to prevent significant pulse releases of odour at times when the effect might be perceptible beyond the site boundary should ensure minimal impact on air in the vicinity of the site.

As detailed previously the proposed development is located a significant distance away from any Natura 2000 sites and emissions (incl. gaseous emissions) are unlikely to adversely impact on same and/or on any other sensitive areas. As previously detailed the operation of the AD plant ais likely to reduce eisting emissions form the combined development.

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- ***Effect on Climate / Climate Change***

Reducing emissions in agriculture is not an easy task. Nonetheless, anaerobic digestion presents an opportunity for farmers to diversify their revenue stream whilst protecting the environment and becoming more sustainable. Much can be learned from other countries in their historic development of anaerobic digestion systems.

In terms of greenhouse gas emissions, anaerobic digestion reduces the methane emitted from open slurry tanks, as the process captures this methane in the form of biogas. Such emissions from slurry management practices account for 12% of total agricultural emissions. Methane has a global warming potential 28 times greater than CO2. In essence, when methane is captured in biogas and ultimately combusted, it releases CO2, which has 28 times less impact on global warming than the original methane.

On a whole life-cycle balance, combustion of biogas as an alternative fuel can result in less emissions compared to the open slurry holding tanks. Furthermore, the increased nutrient availability in digestate as compared to raw slurry reduces the need for synthetic nitrogen fertiliser, and further reduces emissions associated with fertiliser use.

The **World Biogas Association** (WBA) urges policy makers to recognise the vital role of anaerobic digestion (AD) – which produces biogas by recycling methane-emitting organic wastes – as an immediate solution to reducing GHG emissions worldwide.

Clear evidence and recognition from international bodies such as the UN Environment Programme, Climate & Clean Air Coalition and International Energy Agency shows that AD is a readily available, low-cost technology that can immediately help tackle climate change.

Human activity produces 105bn tonnes of organic wastes every year globally. By treating these wastes through AD, as well as producing green gas and other valuable bioproducts, the biogas industry could deliver a reduction of over 10% in global GHG emissions by 2030.

Biogas and biomethane (an upgraded form of biogas) are substitutes for fossil natural gas and can rapidly decarbonise carbon-intensive sectors such as transport and heat. AD technology also plays a vital role in decarbonising agriculture – which by itself generates nearly 20% of global GHG emissions

The potential for anaerobic digestion in Ireland is considerable. Such systems can form an essential element of the circular economy, enabling a reduction in environmental impact as well as producing fuel, food grade CO2 and fertiliser.

This development will have a positive effect on Climate / Climate Change.

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- ***Effect on Visual Aspects and Landscape***

The proposed development will be integrated with the existing farmyard, and is not located close to any third party residential locations and will not be unduly visible and/or have an adverse impact from any vantage point.

- ***Effect on Archaeological* & Cultural *Heritage***

There are no known archaeological sites within the site boundary and no reason to suspect the presence of such sites within the site of the proposed development. No indication of archaeological sites/features was observed as part of previous developments on this site. The current proposal will not impact on any recorded sites in any way.

- ***Effect on Material Assets***

Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin and the value may arise for either economic or cultural reasons. The assessment objectives vary considerably according to the type of assets, those for economic assets being concerned primarily with ensuring equitable and sustainable use of resources. Assessments of cultural assets are more typically concerned with securing the integrity and continuity of both the asset and its necessary context.

The potential impact of the development on archaeology / cultural assets has been discussed previously. Material Assets that may potentially be affected by the proposed development include:

(A) Material Assets: Agricultural Properties including all agricultural enterprises

The development is on, or adjacent to an existing farming site / farmyard complex, in a predominantly agricultural area. The development is surrounded by existing agricultural structures and agricultural farmland in the surrounding area. The development will not interact with any lands outside the confines of the site, except for the production of an improved and valuable organic fertiliser (in lieu of the pig manure which would otherwise be utilised by customer farmers) which may be utilized by the customer farmers as a replacement for chemical fertiliser.

(B) Material Assets: Non-agricultural Properties including residential, commercial, recreational and non-agricultural land.

The existing farmyard site is surrounded by agricultural lands and is located well away from any built up areas and/or development clusters. There are no third party residential dwelling within c. 200 m of the development site. The development will not adversely impact on adjoining property values as, there is a significant separation distance, there is a substantial existing farmyard complex on the site, no additional feedstocks are to be transported to the site and the AD process will reduce potential odours from the site and any spreading of digstate.

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(C) Material Assets: Natural or other resources including mineral resources, land and energy

There will be no adverse impact outside of the development area. The operation of the farm AD plant will not require any additional feedstocks and will supply a renewable source of energy for the farm The farm does not require any major modifications to the existing electricity supplies, water or road infrastructure in the area.

- ***3.3 A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from— (a) the expected residues and emissions and the production of waste, where relevant, and (b) the use of natural resources, in particular soil, land, water and biodiversity.***
  (a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
  (b) the nature of the impact,
  (c) the transboundary nature of the impact,
  (d) the intensity and complexity of the impact,
  (e) the probability of the impact,
  (f) the expected onset, duration, frequency and reversibility of the impact,
  (g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
  (h) the possibility of effectively reducing the impact.

As detailed previously the AD plant will operate on an existing pig farm. The development will result in high quantity and quality of manure storage facilities, utilising the existing volume of organic fertilizser on the farm, to produce an improved fertiliser for customer farmers, and a renewable energy source for the pig farm, thus offering significant advantages to the local environment, incl. reduced odour and GHG emissions.

The proposed development will provide for significant integration and symbiosis with the existing pig farming activities. It is envisaged that taking into account the location of the existing farmyard, compliance with DAFM construction and operational requirements, the setback from any sensitive receptors (human or environmental) and the integration with the existing farming activities, there will be either no impact, or a positive impact on the local area. As this impact will be either neutral or positive (i.e. symbiosis with existing farm and farming enterprises and benefits of fertilizer substitution programme) it is not expected to be significant in magnitude and/or overly complex. As such the probability, duration, frequency and reversibility of any potential impact is not deemed to be significant.

As the proposed development is not located close to the border with Northern Ireland, the proposed development will not have a transfrontier impact.

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- **Assessment of Likely Effects**

A detailed assessment of the impacts, both direct, indirect and cumulative, of the proposed development, which is the subject of this licence application has been carried out. The accompanying assessment provides additional information on the environmental impacts of the proposed activity.

As the proposed development will provide for high quality structures on the farm, that will integrate with and complement the activity on site to;

- Reduce potential odours,
- Reduce GHG emissions,
- Produce an improved fertiliser
- Produce a renewable energy source for the existing pig farm, from the existing feedstock produced on-site, with no additional transport in or out,

And as the development (pig farm, AD plant and thermal treatment unit for fallen stock) will be operated in line with E.P.A. and DAFM standards ands requirements, the development is complementary to the existing activity, inherently sustainable and will result in a more sustainable activity that would not adversely impact on the local environment within the local area and/or when assessed individually and/or cumulatively with other such developments in this area.

If you require any additional information please contact this office.

Yours faithfully,