An Bord Pleanála

Inspector's Report
ABP-309488-21

Development	A renewable biogas facility on a 2.1379 hectare site to produce renewable energy and organic fertiliser. This application included an Environmental Impact Assessment Report (EIAR)
Location	Ballydu[illegible] Tullamore, County Offaly.
Planning Authority	Offaly County Council
Planning Authority Reg. Ref.	20321
Applicant(s)	Strategic Power Limited
Type of Application	Permission.
Planning Authority Decision	Refuse Permission
Type of Appeal	First Party
Appellant(s)	Strategic Power
Observer(s)	Grafton Group PLC Axis Business Park Limited Maura Cuffe and Declan Lambe Rahan Road Residents Association

Date of Site Inspection	21st May, 2021
Inspector	Stephen Kay

1.0 Site Location and Description

1.1. The appeal site is located on the north west fringes of Tullamore approximately 2.2km from the town centre on a site that is currently in agricultural use, but which is within the identified town boundary. The site is located at the edge of the exiting developed area of the town and is located adjacent to the Axis Business Park that is to the north east and east. Access to the site is available either from the north east via the Axis Business Park estate road and onwards to the Clara Road (R420) or from the south via Srah Avenue / Road (R443). The immediate vicinity of the appeal site is undergoing development with a Chad wicks outlet recently opened on a site to the south.

1.2. The Grand Canal flows east-west approximately 1.2km to the south of the site and the Tullamore River is approximately 1.4km to the south of the site at the closest point. The Dublin – Galway railway line is located to the west of the site and comes within c.80 metres of the site at the closest point. The alignment of the proposed Tullamore Western Bypass road as indicated on the recently published Draft Offaly County Development Plan is located a short distance to the west of the site.

1.3. Residential development is located at the Srah Road to the south east of the site with the closest houses in this area located approximately 465 metres from the site boundary. There are individual residential units located to the north of the site at a closer distance to the site, including the farmhouse and farmyard of the site owner that is located to the north. Other uses in the vicinity of the site comprise a council depot that is located to the south of the Chadwicks site and approximately 110 metres to the south of the appeal site. Tullamore Athletic FC grounds are located approximately 150 metres to the north of the site.

1.4. The site is relatively flat with a gentle rise from south to north and is bounded by mature field boundaries and hedgerows. There is an existing hedgerow that runs down the centre of the site north to south and there is an overhead power line that crosses the site north to south.

1.5. The stated area of the appeal site is 2.1379 ha.

2.0 Proposed Development

2.1. The proposed development comprises the construction of a biogas facility that would process feedstock in an anaerobic digestion process to produce a biogas that could then be injected into the existing Gas Networks Ireland (GNI) network.

2.2. The development is proposed to accept approximately 50,000 tonnes of feedstock annually into the facility with material to be accepted including silage, farmyard manure and chicken litter. It is stated that this material will primarily be sourced from farms within a 10km radius of the site and that no municipal waste material would be accepted at the facility. The following breakdown of the feedstock is provided at Table 3.1 of the EIAR:

Ryegrass silage	15,000 tonnes
Manure	15,000 tonnes
Fodder beat	5,500 tonnes
Maize silage	5,500 tonnes
Chicken litter	9,000 tonnes
Total	50,000 tonnes.

2.3. Section 1.4.1 of the EIAR identifies that some of the feedstock would be classified as wastes and / or animal by products. The proposed development is therefore the subject of an Industrial Emissions Licence from the EPA and would also require a Category 2 animal by products permit from the Department of Agriculture Food and the Marine.

2.4. A detailed description of the proposed process of the receipt of material, the anaerobic digestion process and the process is detailed in Chapter 3 of the main volume of the EIAR. The proposed anaerobic digestor process incorporates a number of elements including a feedstock reception hall, boiler, and plant rooms, 2 no. primary digestor tanks, 1 no. secondary digestor tank, 2 no. liquid digestate tanks, 2 no. manure reception tanks, boiler, plant room and flare and 3 no. silage clamps.

2.5. The first step in the process is the use of what is called a solid input device which mixes solid and liquid inputs into the digestion process. The process is controlled from a plant room that is proposed to be located at the eastern end of the site adjoining the Feedstock Reception Hall. The plant room is proposed to be a two storey structure 8.6 metres in height and would house the boiler and odour abatement systems. The feedstock reception hall is proposed to be the largest structure on the site, being an enclosed building with dimensions of 57.8 metres wide (north – south), 30.8 metres in depth and 13.1 metres in height.

2.6. It is stated that the feedstock arriving to the site would be delivered by truck into the feedstock reception hall where the material would be divided into storage bunkers before being fed into the digestors. Liquid manure that arrives via tanker is proposed to be pumped into storage tanks (2 no. tanks approximately 9 metres in diameter and 6 metres in height) and silage is proposed to be stored in one of three silage clamps located on the western end of the site and which would provide a year round supply of material to the digestor. These clamps are proposed to be covered and would have a capacity of c.2,250 cubic metres each.

2.7. The primary (2 no.) and secondary (1 no.) digestor tanks are proposed to be located along the northern side of the site and are where the anaerobic break down of the organic feedstock is proposed to occur. The proposed tanks have a height of 16.35 metres and a diameter of 31.5 metres giving a total volume of 6,858 cubic metres. It is stated that the operational volume of each tank would be approximately 6,079 cubic metres. The biogas generated in the anaerobic digestion process would be captured in the membrane of the roof of the digestor tank and the EIAR (section 3.2.6) indicates that the operational volume in each gas holder dome would be approximately 1,560 cubic metres. The gas captured in the domes of the digestor tanks is proposed to flow into the gas upgrade unit where a carbon filter would remove impurities prior to the discharge from the site. The gas would be pressurised and monitored prior to discharge to the GNI network. To avoid an excessive build-up of gas within the gas storage domes it is proposed that gas could be flared off to ensure that the operational capacity of the three gas storage domes would remain within c.50 percent of maximum capacity. The flare would also potentially be used in circumstances where the generated gas was determined to be below the specified

standard for export to the gas grid or cannot for some other reason be exported to the grid.

2.8. The digestate that comes from the secondary digestor tank is proposed to be passed through a pasteurisation unit which is intended to neutralise bacteria and viruses after which the material is proposed to be pumped into a separator unit where the digestate would be dewatered. The solid digestate is proposed to be stored in a covered storage area located towards the western end of the site and the liquid stored in 2 no. digestate storage tanks. These tanks are large having a height of c.10.3 metres and a diameter of 23 metres. It is stated in the EIAR that this end product fertiliser is intended to be returned to the supply farms. Section 3.4.4 of the EIAR states that the end digestate has a number of benefits relative to untreated organic waste and would reduce reliance on artificial fertilisers and slurry / manure application. The main benefits are stated to be better uptake of nutrients by plants, reduced risk of spreading of microbial contamination in soil and reduced risks to groundwaters from organic pollution.

2.9. A 4.5MW natural gas boiler is proposed to be installed on the site to provide the heat required for the processes, primarily for the pasteurisation process and this boiler has a stack that is approximately 15.5 metres in height. All piping and tanks / storage is proposed to be overground and the submitted layout indicates the digestor tanks, digestate storage tanks and manure reception tanks all being located within a large bunded area on the site that measures approximately 110 metres by 65 metres.

2.10. A new site access onto the local road is proposed at the northern end of the site frontage and internal access roads, parking area and circulation areas are also proposed. A weighbridge is proposed to be installed on the site and a wheel wash is proposed close to the site entrance. Site landscaping and perimeter site works are proposed including a planted berm along the northern and eastern site boundaries. A new footpath and cyclepath are proposed to be provided along the site frontage and this is proposed to be funded by way of a special financial contribution to be made by the developer. A new pedestrian crossing to the north of the site is also proposed.

2.11. The development is proposed to be connected to the public water supply and foul drainage network. The proposed processes are stated to require a water input of c.250 cubic metres per day, the majority of which would be from the collection and reuse of rainwater on the site. It is stated that wastewater derived from the proposed processes would be reused and that no process wastewaters would be discharged from the site.

2.12. The anaerobic digestion process is proposed to operate on a 24 hour basis and to be manned by 4 or 5 staff during day time hours. The facility is proposed to operate unmanned for an 8 hour period during the night and to be remotely monitored during this period. It is stated that feedstock deliveries and digestate collections would be undertaken between the hours of 06.30 to 20.00 Monday to Friday and 08.00 to 18.00 Saturdays.

2.13. The application is accompanied by an EIAR which comprises three volumes as follows:

- Volume 1 – EIAR Non Technical Summary
- Volume 2 – EIAR Main Volume
- Volume 3 – EIAR Appendices.

The application is also accompanied by the following documents:

- Appropriate Assessment Stage 1 Screening Report.
- Preliminary Construction and Environmental Management Plan.
- Engineering Planning Report.

2.14. Permission is sought for a period of 10 years.

3.0 Planning Authority Decision

3.1. Request For Further information

Prior to the issuing of a Notification of Decision further information was requested by the Planning Authority and this request included the following:

- Further details of the alternatives considered by the applicant as the EIAR is considered to be lacking on this issue.
- That the EIAR is considered to be lacking in terms of detail around the source of feedstock and the end user location of the digestate. As much detail as possible (including volumes of material) regarding source / end user locations and the EIAR updated as necessary.
- More detail required with regard to interactions in the EIAR.
- Further details of the proposed connection to the gas network.
- Road design requirements including sightlines at entrance and cycle track / footpath at entrance.
- Clarification from the EPA and Department of Agriculture Food and the Marine that the site will be operated under an IE licence and can obtain a Category 2 animal by product permit.
- Location and details of the proposed flow control device and revised stormwater calculations to include for a rainfall / climate change factor of 15-20 percent.
- Written confirmation from the legal owners of the foul and storm water sewers that connection can be undertaken. Written agreement to the proposal from Irish Water also required.
- Details for the decommissioning of the facility.

The following is a summary of the main information submitted and changes to the project proposed in the response to further information submitted:

- Stated that the alternatives to the proposed located were detailed in the EIAR and that further details cannot be provided due to commercial / landowner confidentiality.
- Letter from Teagasc submitted which states that there is adequate feedstock available, and that grass is a suitable feedstock for the development that is abundant in the local area.
- Stated that approximately 50 percent of the feedstock required will be generated on the applicants own farm and that approximately 60 percent of the digestate would be reused on the same lands.
- A new table setting out interactions in the factors of the environment has been submitted.
- That the front (east facing side) of the proposed silage clamp will be open to facilitate access to this area.
- Plan submitted indicating the gas connection to the GNI infrastructure. This essentially follows the existing road network with a connection point proposed a short distance to the north east of the site at the junction with the Axis Business Park estate road.
- Revised site entrance drawing submitted showing sightlines in accordance with the requirements of DMURS. The entrance has also been revised to provide more pedestrian priority.
- Confirmation submitted from the EPA that the development will be the subject of an Industrial Emissions licence and will be operated in accordance with the terms of any such licence. Letter also submitted from the Department of Agriculture, Food, and the Marine stating that the proposed development appears to meet the requirements for a Category 2 animal by products licence.
- Revised storm water calculations presented showing account made for a 15 percent climate change related increase in rainfall.
- Confirmation of feasibility of a connection to the foul drainage infrastructure submitted from Irish Water.

- Stated that decommissioning is not covered in the EIAR but that this phase of development would be addressed in any licence obtained from the EPA.

3.2. Decision

The Planning Authority issued a Notification of Decision to Refuse Permission for a single reason that can be summarised as follows:

1. That Schedule 6 of the Planning and Development Regulations, 2001 (as amended) requires that certain information relevant to the development are required to be contained in the EIAR including an estimate of the type and quantity of expected residues and emissions and an assessment of the impact of these on the environment. The planning authority is not satisfied on the basis of the information presented that the proposed development would not cause serious air pollution which may have significant effects on the environment and on public health. The proposed development is therefore considered to be contrary to the proper planning and sustainable development of the area.

3.3. Planning Authority Reports

3.3.1. Planning Reports

Initial report of the Planning Officer notes the significant number of submissions received, the content of the EIAR and the internal reports. Further information recommended on range of issues that are consistent with the further information request issued and includes further details relating to feedstock and end destination of digestate, alternatives to the proposed site and further details relating to road design issues, water, wastewater, and surface water drainage. Second report subsequent to the submission of further information notes the content of the submission received from the HSE and recommends refusal of permission consistent with the Notification of Decision which issued.

3.3.2. Other Technical Reports

Road Design – Initial report recommends further information relating to sightlines at the access, pedestrian provision / footpaths, and lighting. Second report subsequent to receipt of further information states that the proposal is acceptable subject to conditions.

Area Engineer – Recommends further information relating to sightlines, pedestrian facilities, and parking. Second report subsequent to the submission of further information states that no objection to the proposed development subject to conditions including a special financial contribution of €5218 per annum in respect of works to the L-20072-1. A basis for this calculation is provided.

Environment and Water Services – Further information relating to EPA licencing and departmental permitting required, storm water details and drainage. Second report subsequent to the submission of further information identifies a failure to provide any information regarding the types, levels, likely significant effects etc. of emissions that would be subject of an IE licence. Reference also made to the submission received from the National Office for Environment Health Service received on 15th September, 2020 and in particular concerns regard emissions to air. Stated that it cannot be concluded on the basis of the information presented in the EIAR that a full assessment of the impacts on air can not be undertaken and it cannot be concluded that there would not be a significant impact on human health.

Fire Officer – No objection.

3.4. **Prescribed Bodies**

Irish Water – No response received by the PA.

Iarnród Eireann – No response received by the PA.

CRU – No response received by the PA.

EPA – Response stating that the proposed development may require a licence but that no licence application has been made to date.

HSE – Submission makes a number of recommendations. On noise, stated that the noise assessment should include an assessment of the predicted change in the noise environment rather than use of standard EPA noise exposure criteria and that

such a change is not likely to have a significant impact on public health. No significant impacts on public health arising from impacts on surface and ground water are predicted. Considers that the assessment of impacts on air quality is not adequate, that it is not sufficient to only state that the requirements of any licence will be complied with and that air dispersion modelling is required.

3.5. Third Party Observations

A significant number of observations on the development from both elected representatives and the public. The issues raised in these submissions include the following:

- Impact of increased traffic,
- Odours, including from transport of materials,
- Potential noise emissions especially at night,
- Potential for spillages and impact on ground and surface waters. Especially noted that the site is in an area of extreme groundwater vulnerability.
- Potential for fire risk / hazard and risk of explosion. There is a record of incidents in the UK and other locations,
- Negative impact on local / surrounding businesses including in the Axis Business Park.
- Concerns regarding proposed connection to what is a private sewer and potential for traffic to access the site via the Axis Business Park which is a private road. Access would have to be via the Rahan Road, but this would not be enforceable.
- Issues around the storage and disposal of digestate.
- Risk of vermin and nuisance.
- Impact of construction traffic not assessed in the EIAR.
- Not realistic that the cited volumes of input material would be available within the 10km of the site referenced in the EIAR.

- That the development would be contrary to the proposed technology and business park zoning that is proposed for the site and surrounding lands under the Draft Development Plan.
- Lack of public consultation,
- Inadequate consideration of alternatives,
- That a location outside of a town would be more appropriate.

4.0 Planning History

The following planning history is referenced in the report of the Planning Officer:

- Offaly County Council Ref. 05/971 – Permission granted for the demolition of existing farmhouse and outbuildings and construction of new roundabout on the Clara Road, access and footpaths, ancillary services, and landscaping.

Other permissions of note include the following:

- Offaly County Council Ref. 05/48 – Permission granted for the development of a warehouse building to be south of the current appeal site to be used as a builders providers. This would appear to be the permission for the Chadwicks development.
- Offaly County Council Ref. 07/1372 (EX13003) – Permission granted for the development of a 1,392 sq. metre warehouse building in the Axis Business Park. This development is located immediately to the east of the current appeal site on the opposite side of the estate road and has been completed. .

I also note the following planning applications referenced on the appeal file:

- Offaly County Council Ref. 18330 – Permission granted by the Planning Authority for the development of 26 no. houses on a site 0.93ha. site bounded to the north east by the R443 (Srah Road) to the north west by the L2007 (Rahan Road), the railway line to the south west and by existing residential development to the south east. The site is located approximately 250 metres to the south of the current appeal site at the closest point and no development on foot of this permission has commenced.
- Meath County Council Ref. NA120218; An Bord Pleanala Ref. PL17.241533 and PL17.244154 – Permission refused by the Planning Authority but granted on appeal by the Board and then decision subsequently annulled by the High Court to Greenfield Ventures Limited 244154 Gillstown, Garlow Cross, Navan, Co. Meath for development comprising the construction of 2 anaerobic digesters to process farm slurry and biodegradable waste to produce renewable energy and fertiliser.

5.0 Policy Context

5.1. National and Regional Policy

Programme for Government

The current programme for government (Our Shared Future) states a commitment to an average 7 percent reduction in greenhouse gas (GHG) emissions per annum over the 2021-2030 period.

Climate Action and Low Carbon Development Bill, 2021

The Bill amends the 2015 Climate Action and Low Carbon Development Act and provides, inter alia, for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050 and to provide for carbon budgets and a sectoral emissions ceiling to apply to different sectors of the economy.

Climate Action Plan 2019 (DECC, 2019)

This plan sets out a framework to guide the country towards decarbonisation, with sectoral strategies for electricity and agriculture. These include to increase reliance on renewable energy sources, support micro-generation and selling into the national grid and the production of bioenergy from agriculture. There are a number of actions that are relevant to the proposed development including Action 10 which promotes the use of technologies such as anaerobic digestors and Actions 71 and 130 that reference assessing the potential for anaerobic digestion to be moved above composting in the waste hierarchy.

Project Ireland 2040 - National Planning Framework

The plan contains a number of National Strategic Outcomes (NSOs) which include the following that are of relevance to the proposed development.

NSO 8 transition to a low carbon and climate resilient society.

NPF56 promotes the sustainable management of waste and the investment in different types of waste treatment and that waste treatment requirements will require, inter alia, '*biological treatment and increased uptake in anaerobic digestion with safe outlets or stabilised residual waste*'

Waste Action Plan for a Circular Economy – National Waste Policy 2020-2025

The plan is produced by the Department of Environment, Climate and Communications and comprises a new roadmap for waste planning and management. It looks to move away from waste disposal and looks instead to how resources can be preserved by creating a circular economy and climate change targets realised. .

Under the heading of Food Waste, the plan states the following:

'To realise anaerobic digestion (AD) and composting potential of the food waste resource. Anaerobic digestion and composting provide opportunities for regional development with benefits for communities through sales of locally generated energy and compost'.

Regional Spatial and Economic Strategy for the Eastern Region

RSO 9 makes reference to support for the transition to a low carbon and clean energy.

RPO7.37 states that *'....a bioeconomy map for the region should be developed that outlines the capacity of the region to supply the range of bioenergy resources required for the fuel mix as well as current and projected consumption requirements for growth in this market.'*

Eastern and Midlands Waste Management Plan, 2015-2021

The plan states that the development of the thermal recovery facilities will be viewed as national facilities and that a consultative approach is required between the regions and national authorities (i.e. the EPA and An Bord Pleanala). The plan states that *'there is a need to consider the spatial distribution of thermal recovery capacity in the state when authorising future facilities'.*

5.2. **Development Plan**

Offaly County Development Plan, 2014-2020 (as amended)

Strategic Objective 11 of the Plan states that the plan will

'ensure that development promoted, supported or facilitated by the development plan provides for the adaptation to climate change and the promotion of renewable energy where possible including the increased risk of flooding.'

The plan contains a number of energy policies that are relevant to the proposed development including EP-01 and EP-02 which seek to encourage and facilitate the development of renewable energy sources.

Objective EO-05 makes reference to bio energy and states that '*the council will support the development of the biogas industry in the county, including rural areas, where appropriate'.*

The area of the appeal site is identified as a low sensitivity area as defined in the Landscape Character Assessment for the county.

Tullamore and Environs Development Plan, 2010-2016 (as extended)

The current statutory development plan for the area is the *Tullamore and Environs Development Plan, 2010-2016* which has been extended up to 2021.

The site is located on lands that are zoned Industrial under this plan. The stated objective for this zone is as follows:

> *'The use of land zoned industry shall be taken to include the use of land for industry / manufacturing, repairs, warehousing, distribution, open storage, waste materials treatment and recovery and transport operating centres. The development of inappropriate mix of uses, such as 'office based development' and retailing will not normally be encouraged.'*

'*Industry – general*' is identified as a use that is 'normally permitted' on lands that are zoned for general industry. A 'materials recovery facility / composting / waste transfer station' are also identified as uses that are 'normally permitted' on lands so zoned. There is no specific reference in the zoning matrix to 'anaerobic digestor' or 'renewable energy' and the plan states that '*proposed land uses that are not listed within the land use zoning matrix are considered on an individual basis having regard to the proper planning and sustainable development of the area and compliance with the relevant policies and objectives , standards and requirements as set out in the TT&EDP, guidelines issued by the Department of the Environment, Heritage and Local Government and other government bodies / sections'.*

The site is located on lands that are immediately to the south of one of four areas identified as masterplan Areas in the plan. The Tullamore Northern Environs Development Masterplan Area.

Policy TTEP 10-38 states that it is council policy *'to facilitate the continued development renewable energy sources having regard to the proper planning and sustainable development of the area concerned….'.*

Policy TTEP 13-41 states that it is the councils policy to support the development of renewable energy in Tullamore Environs, where it is considered appropriate. Such development will be assessed on a case by case basis.

Development management standards are set out at Chapter 14 of the development plan.

Car parking standard for industrial development is stated to be 1 no. space per 50 sq. metres of gross floor area.

Draft Offaly County Development Plan, 2021-2027

The appeal site will be included within the area covered by the new Offaly County Development Plan which is currently in draft form and in respect of which public consultation is nearing completion. It is anticipated that the plan will be adopted in its final form in the autumn of this year.

Under the provisions of the Draft Plan the zoning of the appeal site is proposed to be changed to 'Business and Technology' use with a stated objective to Provide for technology based light industry, research and development and compatible offices in a high quality built and landscaped environment.

Uses not listed will be considered on a case by case basis having regard to the proper planning and sustainable development of the area, other relevant plan policies and objectives, s.28 and other guidance.

Uses identified as not permitted include 'composting facility', 'Materials Recovery Facility, Composting/ Waste Transfer Station/Waste Recycling Centre',

Open for consideration *'waste to energy facilities'*.

Objective LUZO-08 states that it is an objective of the council to Provide for technology based light industry, research and development and compatible offices in a high quality built and landscaped environment.

Section 3.5.2 of the Plan states that

Anaerobic Digestion

Anaerobic digestion is a biological process in which microorganisms break down biodegradable material in the absence of oxygen. One of the end products is biogas, which can be combusted to generate electricity and heat, or can be processed into renewable natural gas and transportation fuels.

Anaerobic digestion of farm or other wastes and by-products, will be considered, as the process has the potential to combat GHG concerns and to provide alternative sources of incomes to farmers or commercial opportunities for standalone businesses on compatibly zoned sites as outlined in Table 12.1.

12.1 Land Use Zoning Matrix in Chapter 12

Uses that are identified as not permitted on lands zoned Business / Technology Park include Industry – Heavy, Composting Facility, Municipal Waste Incinerator. A Waste to Energy facility is identified as being open for consideration.

5.3. Natural Heritage Designations

The site is not located within or close to any European site. The closest such sites to the appeal site are as follows:

- ***Charleville Wood SAC*** (site code 000571) which is located approximately 1.1 km to the appeal site at the closest point.
- ***Clara Bog SAC*** (site code 000572) is located c. 5.6km to the north west of the appeal site at the closest point.

5.4. EIA Screening

An EIAR was submitted with the application as it exceeds thresholds specified under Planning and Development Regulations 2001-2018 Schedule 5, Part 2, Category 11 of the Planning and Development Regulations 2001 as amended which sets out the categories and scale of development that require mandatory EIA as follows:

"Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule and has the potential to cause significant environmental effects."

EIA of the proposed development is considered at section 8.0 of this report below.

6.0 The Appeal

6.1. Grounds of Appeal

The following is a summary of the main issues raised in the first party appeal against refusal of permission:

- That the initial location of the development was proposed to be close to the farm complex on the site but was relocated to the south following meeting with the planning authority.
- That the proposal was the subject of consultations with 29 no. stakeholders prior to finalisation and submission of the EIAR. These bodies included the HSE, EPA, Department of Agriculture Food and the Marine, and the local community.
- It is considered that the Planning Authority has refused permission on the basis of an incorrect assessment.
- That the refusal of permission was made on the basis of the contents of a submission from the HSE which was received seven weeks after the application was submitted and was not included as part of the request for further information. The legality of the refusal is therefore questioned.
- That the applicant was not afforded the opportunity to address the issue which formed the basis for the refusal. The appeal is accompanied by an air modelling exercise which confirm the findings presented in the EIAR.
- That the HSE did not raise the requirement to undertake air quality dispersion modelling from the on site boiler during the pre-application consultations held.

- That the EIA Directive requires that assessments are prepared by competent experts and this was the case in the assessment presented in the EIAR.
- Submitted that Chapter 9 of the EIAR relating to air quality complies with the requirements of the directive as it provides a baseline assessment, identifies potential direct and indirect sources emissions to air and their significance and mitigation measures.
- The EIA Directive requirement of likely significant effects of the development on the environment was met in the assessment.
- That the nature of the proposal was such that odour was considered to be the only potentially significant emission and this was assessed in accordance with best practice and relevant EPA guidance (AG4 and AG9) using odour dispersion modelling.
- That the only other potential continuous emissions to air is the 4.5MW industrial boiler proposed to be installed on the site. Stated that these boilers are regulated through the Medium Combustion Plant Directive which has been transposed to Irish legislation through SI 595 of 2017. Manufacturers of such boilers have to ensure that emissions will comply with strict limits and this is addressed at Section 9.2.5 of the EIAR. Stated that it was the expert opinion of the author of the air quality section that compliance with the regulations and having regard to the receiving environment that air dispersal modelling of a single boiler was not required and would be disproportionate.
- That the proposed stack height for the boiler of 15.55 metres is overdesigned and would be more than 3 metres above the apex of the closest building. There would be no exceedance of the air quality standard and therefore no impact on human health.
- That the boiler proposed is relatively small scale in the context of industrial locations and would run on biogas that is cleaner than oil or solid fuels. The site is also located in an area that has low background concentrations of pollutants. Emissions from the boiler / stack will be regulated by the EPA.

- That the EIA Directive requires that only likely and significant effects would be assessed in detail. Having regard to the above factors this was not considered to be the case in this proposal.
- That the EPA can only issue a licence where it is satisfied that the activity will not contravene a standard set out in Section 50 of the Air Pollution Act and will not cause significant environmental pollution. The development requires an IE licence from the EPA.
- The submitted air dispersion modelling (submitted with appeal) relating to the proposed on site boiler removes any doubt as to the impact of the proposed development and shows that the impacts would be in accordance with those predicted in the EIAR.
- The appeal includes a submission that addresses the issues raised in the third party observations submitted to the Planning Authority:
  - That the traffic and transportation aspects of the proposal were considered to be acceptable by the local authority engineers.
  - That the proposed development is consistent with the General Industry zoning of the site. While the zoning of the site is proposed to change in the draft development plan, this has no effect on the current assessment. Notwithstanding this, it is noted that there is a new use class (waste to energy facilities) introduced in the draft plan and that this use best reflects the nature of the proposed use.
  - That the 50,000 tonnes of feedstock referenced relates to all feedstock types.
  - Stated that all of the feedstock will come from within a 10km radius of the site, and a considerable amount of this feedstock will come from the lands under the control of the applicant.
  - That the traffic impacts of the feedstock were fully considered in the EIAR.
  - That the proximity of the site to the potential gas connection makes it more suitable than a remote location.
  - That the sewers, roads, and services are public and are taken in charge.

- That the storage of digestate will be undertaken in accordance with the IE licence that may be granted by the EPA.
- Issues of construction traffic are addressed in the CEMP and EIAR.
- That the applicant has appeared on radio to discuss the project and answer submissions / questions from the public. The fact that Covid 19 resulted in public meetings not being feasible is outside of the control of the applicant.
- That the football club grounds are located 250 metres to the north of the site on the edge of the industrial lands and would not be impacted by the proposed development. There would be no conflict between club traffic and traffic associated with the proposed development.
- That the development proposes cycle infrastructure across the frontage of the site that would connect with the rest of the industrial estate.
- Policy TTEP15-02 relates to town centre development and is not relevant to the form of development proposed.
- The development is designed not to have any impact on groundwater.
- Surface water will either be reused or drained to the stormwater mains.

6.2. Planning Authority Response

The following is a summary of the main issues raised in the response to the grounds of appeal received from the Planning Authority:

- That the Environment and Water Services Section are satisfied that the information submitted as part of the first party appeal to the decision (contained in the EIAR addendum report) including the air dispersion modelling provides sufficient information regarding the types and quantities of air emissions from the development to enable an assessment of their likely significant impacts.

- Stated that Environment and Water Services agree with the conclusion to the EIAR addendum that the emissions to air as modelled are not likely to have a significant impact on human health.
- That the attention of the Board is brought to the content of the planning and service department reports on file.
- That the modelling of air emissions was considered necessary to demonstrate compliance with relevant limits and this information was not submitted with the initial application.
- That based on the details provided with the initial application (EIAR) the planning authority concluded that the EIAR did not detail all expected emissions and residues as required by the regulations and that permission was therefore refused as it was considered that the planning authority were precluded from granting permission.
- That detailed modelling has now been submitted and is considered to be acceptable.
- Clarified that the response to the request for further information was referred to the environmental health service on 1st December, 2020.
- That all submissions received were scanned and made available online via the councils website.

6.3. **Observations**

Four observations have been received. The following summarised the main issues raised in these submissions:

Rahan Road Residents Association

- That the experience of the similar plant developed in Ballybofey in Donegal has had significant environmental impacts.
- That the need for such plants is recognised but this is considered to be the wrong location.

- That the offer of meeting with the local interests was only made close to the end of the period for submissions to the planning authority.
- That no matter how well designed or operated the facility proposed at this site cannot operate without significant impacts on the environment and such that planning permission needs to be refused.
- That the environmental report submitted with the observation (prepared by Orchid Consulting International) indicates that there are issues with regard to surface and groundwater pollution, odours, air pollution, safety concerns at the site and zoning as well as the proximity of SACs, traffic issues such that the site is wholly unsuitable for the form of development proposed.
- The issues identified in the submitted environmental report include the following:
    - Significant risk to surface waters from runoff from the site and the raw material / digestate is high in ammonia and has a high polluting load,
    - That the digestate volumes are approximately the same as the input volumes indicating a liquid output and potential for spillages.
    - That the statement that sufficient water to serve the development would be obtained from rainwater harvesting is not realistic.
    - That it is not clear that the bedrock beneath the site is not karstified. It is not clear from the information submitted if the proposed development is within the identified zone of influence of the Durrow and Arden aquifers. Submitted that there is a clear source – pathway – receptor to these sources.
    - That the groundwater vulnerability in the area is high and the implications of a leak to groundwater are extreme. The overall risk to local groundwater is therefore profound and a reason for refusal.
    - That the proposed development will result in emissions of methane and other volatile organic compounds, PM10 and 2.5s and hydrocarbons.
    - There is potential for greater pollution in the event that the future feedstock to the plant is changed.

- That there is significant uncertainity regarding the likely circumstances / periods when the on site flare would be in use.
- That the site is directly down (prevailing) wind from the town and residential locations. Stated that there are many instances of similar plants having odour issues. Examples in UK and Ireland (Glenmore AD plant),
- That the three proposed silage clamps that are proposed to be used as a reserve supply for the plant will lead to significant air pollution and will not be mitigated by the proposed bunding.
- No details regarding maintenance of the air abatement system is provided.
- There will be odour implications from spreading of digestate.
- That the potential for bio aerosols in the operational phase of the development cannot be discounted.
- That the issue of dust emissions and monitoring was not addressed in the EIAR.
- Regarding traffic it is not clear that the same HGV can be used to transport feedstock to the anaerobic digestor as will be used to transport digestate from the site.
- That the access road via the R443 is too narrow and close to residential areas. The Rahan road already has significant HGV traffic and associated noise, and traffic would conflict with existing uses including soccer club and Montessori school, within the Axis business park.
- While the development may not be a Seveso establishment, the proposed development would have a serious health and safety risk for residents.
- Other sensitive uses in the vicinity include halting sites to the 1km to the south east, units in the Axis park, and important healthcare plants in the IDA Business Park 500 metres from the site.

- No assessment in EIAR of fire water retention in the event of an incident.
- Potential impacts on Charleville Woods SAC and Clara Bog SAC due to odours and air pollution.
- Visual impact on residential areas not assessed and impact of flare stack.
- That the proposal will detract from the attractiveness of the surrounding business / industrial areas for development.
- No detail provided how the disposal of digestate will be achieved without resulting in pollution of ground and surface waters.
- That the proposed re zoning of the area to business / technology park is not referenced in the EIAR. The proposed use would be unlikely to be acceptable with the revised zoning.
- That there is no community gain or employment benefit from the development.
- The remote monitoring of the facility at night time is not acceptable given the use.
- That there is significant doubt that the listed inputs to the facility can be sourced within the 10km radius cited and that changes to the input mix with high odour and nuisance implications will not arise.

Maura Cuffe and Declan Lambe

- Concerns regarding odours from the raw materials that would be inputs (slurry and chicken litter).
- No details regarding the avoidance of odours along routes to the site.
- That the impression given in the application is that there are few houses in the vicinity of the site. This is not correct. Notably the Shragh Road (R443) to the south east has bungalows and work has started on 26 house development approximately 300 metres from the site. There are a number of large housing developments located within 900 metres to the east and there are further undeveloped residentially zoned lands.

- That contrary to the statement of the first party there are receptors in the Axis Business Park that would be sensitive to odours (Playtown Tullamore, Montessori) and there are further sensitive uses in close proximity.
- Odour was not properly assessed in the EIAR.
- That the plant would operate 24 hours and would generate significant noise.
- That the traffic generated by the development would create a traffic hazard particularly where the route adjoins residential properties / developments.
- That the EIAR cites 50,000 tonnes of raw inputs including 9,000 tonnes of chicken litter. It is not clear where this would be sourced within the stated 10km radius of the site and whether it would be replaced with other more noxious material.
- That the site is proposed to be rezoned under the Draft 2021-2027 Offaly County Development Plan and it is considered that the proposed development would act against the business and technology park development of the area.
- That the proposed development would generate vermin.

Grafton Group

- That in addition to the stated reason for refusal it is submitted that the proposed development is deficient on other grounds.
- That Grafton Group own and operate Tullamore Hardware / Chadwicks which is located immediately to the south of the application site.
- That the fact that the development would produce renewable energy and be consistent with the aims of Directive 2009/28/EC and national climate policy targets is accepted but this does not mean that there should be adverse impacts on the local environment. Similarly, while the proposed development would be consistent with climate change policies referenced in the RSES, there are other policies relating to placemaking, climate action and economic opportunity.
- That the proposed development is contrary to the vision for the area as stated in the 2016-2020 County Development Plan.

- That there are a number of plan policies of relevance including section 2.8.5, Policy RDP-08, Objective RDO-02. Such uses do not have to be located on industrially zoned lands.
- It is not accepted that the proposal is consistent with the *Tullamore and Environs Development Plan, 2010-2016.* The proposed development does not comprise a '*materials recovery facility / composting / waste transfer station*' which is a permitted use which means a recycling centre.
- That the site is located between an industrial and commercially zoned area and is unsuitable for the use proposed.
- The development is contrary to the vision of the town set out in the plan and would have a detrimental impact on existing employment and future employment creation.
- It is noted that the site is located on lands that are proposed to be zoned business / technology under the provisions of the Draft Offaly County Development Plan and the site and surrounding lands are designed as a strategic employment zone. The proposed use is incompatible with these designations due to the low employment intensity proposed for the site.
- That the assessment of alternatives contained in the EIAR and in the response to further information is inadequate. The option of brownfield sites and section 2.3.3 of the plan promotes their future use for 'industrial or energy related uses'. Section 2.4.6 is also supportive of the proposed form of development on disused industrial or brownfield sites.
- That the EIAR and FI response does not give any clear information on the source of feedstock and the end user of the digestate other than that 50 and 60 percent respectively will come from the landowners land.
- Noted that a large part of the landowners lands are zoned and will be developed in the future with the remaining lands west of the by-pass and severed from the proposed site.
- That the access road is a local cul de sac and the full impact of traffic accessing the site has not been assessed.

- That the EIAR is incomplete because it did not assess the complete scope of works. This has not occurred in this case as it has not assessed the gas connection and there is no assessment of the capacity of the sewer.
- That the risk of explosion is real (examples cited) and has not been adequately considered in the site selection.
- That the information presented with the application is such that it is not possible to assess whether the site is a Seveso site and therefore whether the views of the HSA should be sought.
- That the assessment of odour impacts is inadequate.

Axis Business Centre

- That the Offaly County Council and HSE submissions on file indicate that the applicant has failed to demonstrate that air quality will not be affected.
- While the site is zoned industrial under the provisions of the Tullamore Town Development Plan, the context of the site has changed since this designation was initially made and specifically changes in the development of the business park and lands surrounding the site.
- The Axis Business Park has developed as a light industrial area and this is reflected in the identification of the area as a strategic employment zone in the draft plan.
- That odour is clearly going to be an issue in this development, and it will impact negatively on human health and the ability of people to work in the vicinity.
- That the business park currently accommodates 40 businesses with c.440 employees. It is an important employment centre for the town and would be compromised by the proposed form of development. There is a potential loss of employment in the area if this development is allowed to be undertaken.
- That these is inadequate information on alternative sites.
- That access to the site via the business park would be harmful to users of the park due to air quality impacts. The use of the business park's roads would add to the ongoing maintenance cost of the roads infrastructure in the park.

Submitted that the development should only be permitted if access to the site is only by public roads. This would however be difficult to enforce.

- That the works to connect the proposed development to the drainage network will be underground by a private company and will require permission.
- That Axis Business Park has not consented to connection to the private infrastructure (private sewer not public) or consented to the making of the application. While Irish Water may indicate the potential for connection, it does not have control or ownership over this system. At a minimum a condition requiring that development does not proceed until full details of the existing means of connection to the drainage infrastructure has been provided should be attached to any permission.

6.4. Further Responses

Details of the application were referred to the EPA for comment on the application and EIAR in accordance with section 87(1)(F) of the Act. The following is a summary of the issues raised in the response received:

- That the development may require a licence under Class 11 of the EPA Act.
- That no application has been received to date.
- That in the event of any licence application such an application would have to be accompanied by an EIAR and an assessment of the EIAR undertaken by the Agency.
- That should a licence application be received, then all matters to do with emissions to the environment , the licence application and the EIAR will be considered by the Agency. Where the Agency is of the view that the proposed activities cannot be effectively regulated under a licence then the Agency cannot grant a licence.

7.0 Planning Assessment

7.1. The following are considered to be the main issues in the assessment of this case:

- Validity of Planning Authority Decision and Substantive Reason for Refusal
- Principle of Development and Land Use Zoning,
- Other Issues,

7.2. Validity of Planning Authority Decision and Substantive Reason for Refusal

7.2.1. The basis of the first party appeal submitted is that the reason for refusal is based on an incorrect assessment of the potential for the on site 4.5 MW boiler to impact on emissions to air. The first party appeal questions both the way in which the permission was refused post further information and also contends that the emissions from this boiler would not be such as to result in any significant impacts on air quality, that the emissions would in any event be the subject of licence from the EPA and that detailed air dispersion modelling was not required. It is considered that the Planning Authority refused permission on the basis of an incorrect assessment of the risk of air pollution.

7.2.2. Firstly, on the issue of the process and assessment of the case leading up to the refusal of permission by the Planning Authority, the first party query the fact that the concerns raised in the submission of the HSE, in particular those relating to air quality, were not raised as part of the request for further information. It is submitted that had this issue been raised as part of the further information request that it could have been addressed and the decision would not have been a refusal of permission. Questions regarding the legality of the way that the application was processed, and the decision are raised on foot of the way the application was processed.

7.2.3. The circumstances are that the application was received by the Planning Authority on 23rd July, 2020. The report of the Planning Officer recommending the request of further information is dated the 15th September, 2020 and the further information request issued is dated 16th September, 2020. The submission received from the HSE which raises the concern regarding air quality is dated 8th September and is date stamped as being received by the Planning Authority on 15th September. While

it is clearly not ideal that the issues raised by the HSE were not raised with the applicant in the further information request issued, and the approach taken where a new issue forms the basis for the refusal of permission is at variance with the Development Management Guidelines, I do not agree that the decision issued by the Planning Authority is not legally valid on this basis. I do not therefore consider that there is a basis for the Bard to dismiss the appeal and consider that the appeal falls for determination by the Board. Any issue regarding the validity of the decision issued or procedures followed is between the first party and the Planning Authority in the first instance.

7.2.4. With regard to the substantive reason for the Notification of Decision to Refuse Permission issued by the Planning Authority relating to the potential for the development to lead to serious air pollution, I note the case presented by the first party that the boiler proposed to be installed on the site would be regulated through the Medium Combustion Plant Directive. I also note that the development would require an industrial emissions licence which would specify emission limit values that would have to be complied with in the development and that the first party state that modelling to demonstrate compliance with the emission limits specified in any licence would be required in advance of any licence being issued. Given that the development requires a licence from the EPA the role of the Board is to determine whether there is a likely risk of significant impacts on the environment such as would justify refusal of permission. Given the nature of the proposed boiler, the requirement that it would operate in accordance with emission limit values specified in an IE licence and under the requirements of the Medium Combustion Plant Directive and the location of the site relative to surrounding land uses I consider that the potential for significant impacts on air quality to arise is limited and I therefore am in general agreement with the case made by the first party with regard to the likelihood of significant impacts on the environment arising from this aspect of the proposed development and the adequacy of the content of the Air Quality section of the EIAR (Chapter 9).

7.2.5. Notwithstanding this view, as part of the appeal submission, the first party has submitted an air dispersion model, and the methodology used, and the output of this model is considered in detail in section 8.4 of this report below under the heading EIA – Air. This section addresses the likely significant impacts of all aspects of the

proposed development in terms of air quality. As set out in section 8.4, I consider that the air dispersion modelling submitted with the appeal demonstrates that no significant negative impacts on air quality would arise due to the operation of the onsite boiler.

7.3. **Principle of Development and Land Use Zoning,**

7.3.1. The form of development proposed comprises an anaerobic digester that aims to produce renewable biogas that can be injected into the natural gas grid. The development therefore has a role in meeting the countries renewable energy and climate change targets. There are a number of national and regional level policy objectives that are in my opinion consistent with the form of development proposed. National policy as set out in the Programme for Government and the Climate Action and Low Carbon Development Act seeks to achieve a significant reduction in greenhouse gas emissions over the period to 2030, and the form of development proposed with the use of agricultural products to generate renewable biogas that can generate electricity is such that it would assist in reducing overall greenhouse gas emissions. The production of bio energy from agriculture is specifically referenced in the 2019 Climate Action Plan and the measures identified to achieve the targeted emissions reductions include adopting '*a whole-of-Government approach to reviewing the potential of anaerobic digestion to supply biogas and biomethane, including opportunities in indigenous grass silage and slurry*', (section 11.3).

7.3.2. Implementation of national policy in the treatment and disposal of waste is developed in *Waste Action Plan for a Circular Economy – National Waste Policy 2020-2025* produced by the Department of Environment, Climate and Communications. This plan looks to move away from waste disposal and looks instead to how resources can be preserved by creating a circular economy and climate change targets realised. Under the heading of Food Waste, the plan recognises the significance of recognising anaerobic digestion (AD) and composting potential of the food waste resource.

7.3.3. The form of development proposed comprising the generation of energy from biological treatment of wastes is also referenced in the National Planning Framework where NPO56 promotes the sustainable management of waste and the investment

in different types of waste treatment and states that waste treatment requirements will require, inter alia, *'biological treatment and increased uptake in anaerobic digestion with safe outlets or stabilised residual waste'.*

7.3.4. Based on the above, the requirement for and benefits of anaerobic digestion are recognised in national planning and government policy such that, in principle, the form of development proposed is in my opinion acceptable and compatible with national energy and waste policy. The form of development proposed is also in my opinion consistent with the achievement of national targets for greenhouse gas emission reductions given the replacement of natural gas with gas generated from the anaerobic digestion process and the benefits accruing from the use of digestate as fertiliser in place of the spreading of slurry or the use of artificial fertilisers.

7.3.5. At local level, the current statutory development plan for the area is the *Tullamore and Environs Development Plan, 2010-2016* which has been extended up to 2021. The site is located on lands that are zoned Industrial under this plan and the stated objective for this zone is as follows:

> *'The use of land zoned industry shall be taken to include the use of land for industry / manufacturing, repairs, warehousing, distribution, open storage, waste materials treatment and recovery and transport operating centres. The development of inappropriate mix of uses, such as 'office based development' and retailing will not normally be encouraged.'*

7.3.6. '*Industry – general*' is identified as a use that is 'normally permitted' on lands that are zoned for general industry. A '*materials recovery facility / composting / waste transfer station*' is also identified as being 'normally permitted' on lands so zoned. There is no specific use class for anaerobic digestor listed in the land use zoning matrix and the above uses are in my opinion the closest use classes listed to the form of development proposed. I note the fact that observers to the appeal (namely the observation submitted on behalf of the Grafton Group) question the compatibility of the proposed development with the current land use zoning and specifically argue that the proposed development does not comprise a '*materials recovery facility / composting / waste transfer station'* which, it is contended, means a recycling centre. I agree that the proposed development does not clearly come within what would normally be considered to comprise a 'materials recovery facility / composting /

waste transfer station'. In my opinion, the form of development proposed does however come within what could be considered to comprise 'general industry'. I am also of the opinion that the form of development proposed is consistent with the stated objective for the zone as recited above, in particular in so far as it specifically references industry and the treatment and recovery of waste materials.

7.3.7. Notwithstanding the above assessment, paragraph 15.4 of the plan relating to 'other uses' states that land uses which are not listed within the land use zoning matrix will be considered on an individual basis, with regard being had to the proper planning and sustainable development of the area and compliance with the relevant policies and objectives, standards and requirements as set out in the Tullamore Town and Environs Development Plan, as well as guidelines issued by the Department of the Environment, Heritage and Local Government and other Government bodies/sections. As noted above, there is considerable high level / national level policy support for the form of development proposed. I also note that Policies TTEP 10-38 and TTEP 13-41 states that it is the council policy to support the development of renewable energy in Tullamore Environs. On balance therefore, I consider that in principle the form of development proposed is consistent with the land use zoning provisions of the *Tullamore and Environs Development Plan, 2010-2016.*

7.3.8. I note the fact that the observation on the appeal received from the Grafton Group questions the need for such a form of development to be located on zoned lands and contends that there are a number of policies of relevance in this regard, including section 2.8.5, Policy RDP-08, Objective RDO-02. These cited policies and development plan extracts are from the *Offaly County Development Plan, 2016-2020* (as varied and extended) and state that the Council will support the development of the bio-energy, including bio-gas, industry in the county, including rural areas, where appropriate. These plan provisions are noted however they are not in my opinion such as to indicate that developments of the form proposed in the subject application should be located in rural rather than urban areas or that they cannot be successfully accommodated in urban areas on zoned lands.

7.3.9. A number of observations on the first party appeal highlight the fact that the appeal site is proposed to be rezoned under the provisions of the *Draft Offaly County Development Plan, 2021-2027* which includes a new town plan for Tullamore This

draft plan is currently at the stage of public consultation on the material amendments and is likely to be adopted in its final form in autumn 2021. The Draft Plan is not therefore currently a statutory document and is not a document to which the Board is required to have regard. The plan does however indicate that the pattern of development in the environs of the site is proposed to change to '*Business and Technology*' use, and Objective LUZO-08 of the Draft Plan states that it is an objective of the council to '*provide for technology based light industry, research and development and compatible offices in a high quality built and landscaped environment'.* Uses that are identified in the Draft Plan as not permitted on lands zoned Business / Technology Park include Industry – Heavy, Composting Facility, and Municipal Waste Incinerator. A Waste to Energy facility is identified as being open for consideration. In my opinion, none of these use classes are clearly the same as the form of development which is the subject of the current appeal and the draft plan contains provision for uses not identified in the zoning matrix to be assessed on their merits. From the land use zoning map included with the Draft Plan, I also note that the appeal site is located at the far southern end of the area proposed to be zoned 'Business and Technology' with lands to the south (the Chadwicks site) and to the east on the opposite side of the estate road proposed to remain zoned 'Industrial and Warehousing'. The development of the appeal site would not therefore in my opinion act to fragment or impact in a very significant way on the overall parcel of lands that are proposed to be zoned for business and technology use. A full examination of the likely significant environmental impacts arising from the proposed development is set out at section 8.0 of this report below under the heading of EIA and no significant adverse environmental impacts on existing identified sensitive receptors / locations are considered likely to arise. The impact of the currently undeveloped lands proposed to be zoned for Business and Technology use under the draft plan is not specifically addressed in the submitted EIAR, however given the location of these lands relative to the appeal site and the results of the assessment undertaken at section 8.0 of this report under the heading of EIA, and specifically the assessment under the heading of air quality, noise and landscape and visual, I do not consider that the proposed development would be inconsistent with the proposed Business and Technology zoning under the Draft

County Development Plan or would act to mitigate against the future development of these lands for these uses.

7.3.10. The third party submissions on file, and notably that submitted on behalf of the Axis Business Centre, contend that the environmental impacts arising from the proposed development including odours, traffic and noise would have the effect of making the business park a less attractive location for businesses. The submission references the fact that the business park currently accommodates 40 businesses with c.440 employees. I agree that the business park is an important employment centre for the town and that the future development of the park and adjoining undeveloped zoned lands will be import for the future development of Tullamore. Other third party submissions make reference to the potential impact of the proposed development on sensitive land uses located within and adjacent to the business park lands including a creche / Montessori school and the football club ground located to the north of the site. The potential impacts cited relate to nuisance and disturbance relate to air quality and traffic impacts in particular and these are examined in detail in section 8.0 of this report below under the heading of EIA. As set out in this assessment, I do not consider that the proposed development is likely to have a significant negative impact on the environment of sensitive receptors in the vicinity of the site including the Axis Business Park by virtue of impacts on air quality, noise, traffic or other environmental impacts and do not therefore agree with the third parties that the existing or future operation of the business park would be significantly compromised by the proposed form of development or that there would be a potential loss of employment in the area if this development is allowed to be undertaken.

7.4. **Other Issues**

Feedstock Mix and Availability

7.4.1. A number of third party submissions question how realistic it is that the cited volumes of input material would be available within the 10km of the site referenced in the EIAR. On the subject of the source of feedstock for the development, section 3.0 which sets out the description of development and Table 3-1 are clear that the maximum annual input of material through the facility would be 50,000 tonnes per annum, with this being broken down as per Table 3-1. With regard to availability of

the basic material, paragraph 2.4.5 of the EIAR notes that a CSO survey in 2016 indicated that there were substantial volumes of agricultural residues produced in the Dublin, Midland and Mid-East regions. Information submitted as part of the response to further information, indicates that the site currently comprises part of a larger farm of c.402 ha. the bulk of which is located within c.10km of the appeal site. It is indicated that this farm operation will be capable of providing c.50 percent of the feedstock required to serve the proposed facility and that a similar percentage of the digestate produced could be spread on these lands. Notwithstanding the fact highlighted by third party observers that some of the farm holding from which the appeal site is being taken includes zoned lands and that the holding may be partially severed by the future construction of the Tullamore by pass, I am satisfied that this holding will be capable of facilitating a significant proportion of the source feedstock and finished digestate generated by the development. The response to further information also includes correspondence from Teagasc which sets out how there is currently a surplus of grass in excess of livestock requirements and that there is the potential for significant volumes of chicken litter to be sourced locally. On the basis of the information presented in the EIAR and the response to further information I am satisfied that there are adequate volumes of feedstock available to meet the ratios set out in Table 3-1 of Volume 2 of the EIAR.

7.4.2. Third party observations on the appeal also raise concerns regarding the potential for the feedstock mix to be changed over time such that more significant environmental impacts may arise. I note this concern and agree that significant changes to the feedstock mix would have potential to alter the impacts on the environment and on surrounding properties and residents. The wording of Chapter 3 of the EIAR which sets out the description of the proposed development is in my opinion definite with regard to the proposed composition of the feedstock. The design of the development and site layout (for example the size and layout of the silage clamps) has been based on these ratios and the assessment of impacts undertaken on the basis of the specified inputs. For these reasons it is recommended that any grant of permission would be subject to a condition which, in addition to restricting the annual input volume of feedstock to a maximum of 50,000 tonnes per annum and would specify that the composition of feedstock used as input into the anaerobic digestors shall be as detailed in Table 3-1 of Volume 2 of the

EIAR. In the event of a grant of permission, it is also recommended that permission would be subject to a condition that would require the production of an annual report to be submitted to the Planning Authority that would specify the volume of raw material (feedstock) processed in the anaerobic digestor and the volume of digestate produced.

7.4.3. Third party observations on the appeal also highlight the fact that the EIAR and FI response do not give any clear information on the source of feedstock and the end user of the digestate. The issue of indirect impacts arising from feedstock sourcing and disposal of digestate is considered in more detail in section 8.0 below under the heading of EIA and specifically at section 8.4 under the heading of Water which I consider to be the factor of the environment most likely to be subject of indirect impacts from the sourcing of feedstock and the disposal of digestate. In summary, I consider that the following points should be noted with regard to these indirect impacts:

- As highlighted at section 1.4.1 of the EIAR and also at section 2.2 of the Response to Further information submitted to the Planning Authority, the proposed development will be the subject of an Industrial Emissions licence from the EPA and it is anticipated that this licence will include measures to regulate the disposal of the digestate. The first party state that a nutrient management plan that will need to be prepared in accordance with the licence.
- Given the volume of material required (50,000 tonnes per annum) and the likely lifespan of the project, the practicality of identifying specific sources for the input of feedstock into the anaerobic digestion process is in my opinion questionable. The feasibility of identifying specific source / feedstock locations that would not change over time is particularly questionable in the event that the feedstock ratios are proposed not to change.
- With regard to the feedstock inputs to the proposed development, regard has to be had to the fact that none of the feedstock is being produced with the sole intention of being an input into the anaerobic digestion process. Rather, the inputs identified in Table 3-1 of the EIAR are such that they are primarily by products of existing agricultural activity and, in the event that the proposed

development were not to proceed, would have to be disposed of by alternative means. Relative to the 'do nothing' scenario, I do not therefore see that the proposed feedstock materials can be seen to lead to the production of additional input / animal by produce material and I do not therefore see that the feedstock requirements for the project are likely to result in any significant additional environmental impacts.

- In my opinion, a similar situation occurs with regard to the digestate. The digestate produced from the anaerobic digestion process will be suitable to be used as a bio fertiliser on agricultural lands. To a significant extent therefore the digestate produced will replace more potentially contaminating raw materials such as slurry and artificial fertilisers which can have other potentially significant environmental impacts. As set out in the point above, in a 'do nothing' scenario, there will be animal by products and other feedstock material that will need to be disposed of, with a significant amount of this material likely to be disposed of by spreading on land. While the disposal of digestate will clearly have a potentially negative indirect impact, particularly on water quality, as set out at sections 2.4.4 and 2.4.5 of the EIAR, the likely impacts arising from disposal of this material are significantly less significant than those arising from the application of artificial fertilisers or the application of slurry / manure. Specifically, as set out in the EIAR, nutrients in the digestate are more freely available for plant uptake leading to improved recycling of nutrients in the environment and the pasteurisation process undertaken on the digestate would reduce potential organic pollution. These benefits appear to have been taken from 'Guidelines for Anaerobic Digestion in Ireland' (2018) produced by the Composting and Anaerobic Digestion Association of Ireland, (pgs. 8-9 under the heading of Environmental Health and Waste Management Benefits). .
- Finally, I note the reference made by the first party to the Red II Directive which had a latest transposition deadline of 30 June, 2021 and the fact that under this directive any farmer providing feedstock into an anaerobic digestor must use bio fertiliser rather than artificial fertilisers on their land. The requirements of this direction would therefore appear to point to an ongoing demand for digestate as a fertiliser.

Connection to Gas Network

7.4.4. The third party observation received on behalf of the Grafton Group contends that the EIAR is incomplete because it did not assess the complete scope of works, and in particular as it has not assessed the gas connection and there is no assessment of the capacity of the sewer. Under the heading of Legal Issues – Services below, it is concluded that the foul sewer is located on a public road that has been taken in charge and that the foul drainage network has also therefore been taken in charge. Issues relating to capacity are addressed at the relevant sections under the heading of EIA (section 8.0 below). With regard to connections to the foul and surface water drainage networks, it is noted that these are located in the road immediately fronting the appeal site, that there is no clear indication that these services are in private ownership and that Irish Water has not indicated any objection to connections to serve the proposed development.

7.4.5. Regarding the proposed gas connection, Section 1.4 of the EIAR notes that the existing GNI network is located a short distance to the north east of the site and the gas connection is referenced at paragraph 2.5 of the response to further information and illustrated in Drg. 803 Rev. P1 (Proposed Site Layout) submitted as part of the response to further information. The proposed connection point is approximately 35 metres from the site boundary and the full connection from the grid injection point on site to the connection point to the GNI network is approximately 60 metres. Outside of the site boundary, the line of the proposed grid connection follows the public road and, given the length of the connection and the terrain in which it is proposed to be located, I do not consider that there are any likely significant environmental impacts arising from this part of the proposed development.

7.4.6. Section 1.4 of the EIAR states that the connection to the GNI grid will be undertaken by exempted development in accordance with the Planning and Development Regulations, 2001 (as amended) and that '*therefore these minor works will not be considered further as part of this EIAR*'. In the circumstances of the subject application, the gas connection to the network outside of the identified site boundary, while very short at c.35 metres, is a necessary part of the proposed development and such that it has a functional interdependence with the anaerobic digestion

development on the appeal site. The anaerobic digestor cannot operate without the grid connection being in place and I therefore consider that the principles set out in the O'Grianna case are of some relevance to this case. The outcome of the O'Grianna however does not in my opinion prevent the consent for the gas connection being sought separate from the main application and this is what is proposed in the current case. The application submitted relates solely to the anaerobic digestor plant and, as it is accompanied by an EIAR, what is required is an indication of the grid connection such as to enable the environmental impacts of the grid connection to be considered. As discussed below, I consider that such a level of detail relating to the grid connection is available in this case.

7.4.7. The findings in the Daly v Kilronan Windfarm Ltd [2017] IEHC 308 case are also in my opinion of some relevance to consideration of the gas connection in the current case. In this case, it was held that grid works which are part of a development that requires an EIA must be the subject of an environmental assessment that includes the project as a whole and that, in such circumstances, no part of the project can be exempt from planning. While there are some apparent inconsistencies in the Daly v Kilronan judgement on this issue, this judgement points to the approach proposed by the first party where EIA is only undertaken on the substantive part of the project (the anaerobic digestor which is the subject of this appeal) with the gas connection being undertaken under exempted development as not being legally correct. Notwithstanding this, I do not consider the approach proposed by the first party to be fatal if the gas connection part of the project is included in the EIA undertaken by the planning authority, or in this case the by the Board. In order for such as assessment to be undertaken, sufficient information must be available to the Planning Authority / Board to enable a full assessment of the environmental impacts to be undertaken and in this regard, I note the content of section 2.5 of the Response to Further Information which provides details of the proposed gas connection. The submitted information includes the alignment of the gas connection and the proposed connection point on a Site Layout Plan and installation details including pipe diameter and installation including a minimum coverage of 750mm in accordance with GNI standard requirements. The location and length of the proposed gas connection and the level of information on file regarding the proposed connection is in my opinion sufficient to enable the Board to undertake an EIA of the project,

including the gas connection and the scope of the EIA undertaken at section 8.0 below therefore includes consideration of the likely significant environmental impacts of the overall project including the proposed gas connection. .

Financial Contributions

7.4.8. The form of development proposed is such that it would be the subject of a development contribution in the event that the Board made a decision to grant permission. Such a financial contribution would be in accordance with the *Offaly County Council Development Contribution Scheme 2021-2025* which was adopted by the council in January, 2021 and which covers the area of the appeal site.

7.4.9. I note from the first party submissions on file that it is proposed by the first party that they would contribute towards the cost of the provision of cycle infrastructure across the frontage of the site that in future on completion of development on adjoining lands, this would connect with the rest of the industrial estate. The site layout (see Drg. No. P803) appears to indicate that the area for the provision of this infrastructure would come from the site. Section 3.2.1 of the EIAR indicates that the first party is satisfied to pay for the cost of these works but that these should be undertaken at a future date when the entire length of this section of footpath / cyclepath can be completed and I agree that this would be the most appropriate approach. No costings for the proposed section of footpath / cyclepath are presented on file however and it is not clear from the wording of the adopted development contribution scheme whether provision for such infrastructure has already been included in the scheme. On balance, given that the applicant has proposed that they would fund these works it is recommended that in the event of a grant of permission a condition requiring the payment of a special development contribution would be attached.

7.4.10. The report on file from the district engineer (dated 11th December, 2020) sets out details of a special levy of €5,218 per annum to be applied in respect of the provision of a base and top course to the L-20072-1 and which would be renewed every 10 years. The report states that this road would be significantly impacted by HGV traffic to and from the site. A calculation is presented showing that Strategic Power Limited would account for c.78 percent of the daily HGV movements on this road and should

therefore be liable for 78 percent of the estimated cost of €66,900 every 10 years. There are in my opinion a number of issues that need to be highlighted on this proposed approach. Firstly, on the basis of the information available, the local road L-20072-1 onto which the site is proposed to access is a public road. At the time of inspection of the site the road was observed to require some surface finishing however the fact that the site and adjoining lands fronting this road are zoned under the current Tullamore Town Plan indicates to me that any works required to facilitate access should have been accounted for under the statutory development contribution scheme. Notwithstanding this, I would also question the basis for a single site being liable for 78 percent of any contribution given the extent of other lands that could be serviced from this road and the appropriateness or ability of the Planning Authority to impose a recurring contribution. For these reasons, in the event that the Board decides to grant permission in this case, I do not consider it appropriate that a special contribution in respect of the upgrade of the L-20072-1 would be attached.

Seveso Directive

7.4.11. Issues relating to the Seveso Directive and the potential for the proposed development to come within the scope of the COMAH Regulations 2015, are addressed at paragraph 5.4.1 of Volume 2 of the submitted EIAR and at Appendix 5.1 of Volume 3. A number of submissions, notably that received on behalf of the Grafton Group, indicate that it is not clear that the proposed development does not comprise a project that comes within the scope of the Control of Major Accident Hazard Regulations and that details of the development should have been referred to the Health and Safety Authority (HSA) for comment. Details of the application were not referred to the HSA by the Planning Authority.

7.4.12. The basis for the contention by the first party that the Seveso Directive does not apply to the proposed development relates to the fact that the design of the proposed facility is such that there is not proposed to be any gas storage on site. The design incorporates collection of biogas in the domes of the digestor tanks and any excess gas collected on the site due to an issue with quality, the ability of the network to take the gas or other issues is proposed to be flared. The EIAR states

that the threshold for P2 'flammable gas' is 10 tonnes for a lower tier establishment and 50 tonnes for 'upgraded biogas'. It is therefore contended that the Seveso Directive does not apply to the proposed development. Paragraph 5.4.1 of Volume 2 of the EIAR states that Appendix 5.1 comprises a Seveso Assessment. The assessment contained in the Appendix 5.1 on file contains a brief table which sets out the typical operational tonnage of biogas on the site as 5.478 tonnes contained in the domes of the primary and secondary tanks and 12 tonnes of liquified petroleum gas which would be contained in the 3 no. 4 tonne LPG tanks proposed on site. On the basis of these figures, the combined percentage of the relevant thresholds for the two identified COMAH substances is stated to be 0.79 which is less than the lower tier threshold of 1.0 and therefore such that a COMAH assessment is not required.

7.4.13. No reference has been made by parties to the appeal to High Court case No. 637 of 2016 which is ***Halpin vs An Bord Pleanala***, however I consider that this case is worth some mention. This case related to a challenge to the decision of An Bord Pleanala to grant permission to Greenfield Ventures Limited for a development comprising the construction of 2 no. anaerobic digesters to process farm slurry and biodegradable waste to produce renewable energy and fertiliser at Gillstown, Garlow Cross, Navan, Co. Meath, (Meath County Council Ref. NA120218; An Bord Pleanala Refs. PL17.241533 and PL17.244154). One of the grounds of challenge of this decision was that the Board did not have sufficient information before it to support the conclusion reached that there was no likelihood that the 10 tonne limit for biogas specified in the COMAH Regulations would be exceeded. Having reviewed the judgement in this case there are a number of aspects that are similar to the current appeal. Specifically, related to the Seveso Directive, both proposed developments are such that gas storage is not proposed to be an element of the project with gas being processed and then exported off site. Also, both developments propose that in the event that gas cannot for whatever reason be exported then the on site flaring of gas would be undertaken.

7.4.14. The circumstances of the Halpin case are slightly unusual in that it relates to an application for an anaerobic digestor development where the application predated the 2015 COMAH regulations coming into effect but the final decision was issued post implementation of these regulations. The Board decided that it was appropriate that it commission an independent report (referred to in the judgement as the Byrne

O'Cleirigh Report) and it is notable that this report identified a number of gaps in the information provided with the application which mean that it was not possible to be definitive in terms of the gas storage capacity of the proposed digestors. Specifically, the BOC report, and other information presented during the course of the case, indicate that the amount of gas capable of being stored can vary depending on the methane concentration of the gas and the atmospheric pressure. It also indicated that there was potential for gas to be collected in other parts of the on site equipment, notably in the digestor tanks and associated pipework, as well as in the dedicated collection domes on top of the tanks. In terms of the current proposal, it is not evident from the information presented on file how these parameters have been incorporated into the Seveso assessment undertaken and the results presented at Appendix 5.1 of the EIAR.

7.4.15. Notwithstanding this, there are in my opinion a number of points that should be noted in respect of the proposal the subject of the current appeal. Firstly, while no detailed breakdown of the capacity of the digestors in terms of biomass and gas is provided and there are no detailed sections of the proposed digestors provided (see Drgs Nos. 820 and 821), the information presented does indicate the following:

- That the process proposed does comprise the collection of gas in a flexible dome to the digestors, and no other dedicated on site storage areas or vessels for gas produced from the digestor process is proposed.
- While detailed drawings of the digestors is not provided, paragraph 3.6.2 of Volume 2 of the EIAR states that the operational volume of each digestor tank would be 6,079 cubic metres and that the volume of each gas holder dome is proposed to be 1,660 cubic metres. It is also stated that the mixture level within the tanks is proposed to vary by less than 1 metre and that a minimum freeboard of 0.5 metres would be maintained to the tank.
- Paragraph 3.2.14 of the EIAR under the heading of Flare states that the on site flare will be operated automatically '*to allow the operational capacity within the 3 no. gas holder domes to remain at ca.50 percent*'.

7.4.16. The typical weight of biogas is approximately 1.15kg / cubic metre, however this would likely vary slightly depending on the exact mix of methane and carbon dioxide. Using 1.15 kg/ cubic metre, the level of 1,660 cubic metres of gas storage provided

in each digestor would equate to 1,909 kg or 1.909 tonnes. The process is stated to collect a significantly smaller volume of gas in the secondary digestor, so the maximum volume of gas collected in the domes is likely to be less than the theoretical maximum of 5,727 kg (1,909 by 3) or 5.727 tonnes. This is slightly higher than the 5.478 tonnes cited in Appendix 5 of the EIAR however this may be explained by use of a slightly different weight per cubic metre.

7.4.17. In the Halpin case, the BOC report identified some scope for ambiguity in that there could be gas generated within the digestor that had not been collected in the dome. The description of the current development states that the digestors would be filled to within c.1 metre of the top of the digestor tanks and with such a level there is therefore a theoretical potential for some additional gas to be stored in each of the three digestors although in practice I do not see how significant additional gas could be stored other than in the storage domes. Given the 12 tonnes of LPG proposed to be stored on site, the amount of flammable gas that could be stored while remaining below the lower tier Seveso threshold would be 7.6 tonnes (7.6/10 =0.76 plus 12/50 = 0.24). There is therefore considerable headroom between the 5.478 tonnes of gas cited in the EIAR and the 7.6 tonnes maximum that can be stored on site while remaining within the lower tier threshold and it would appear very unlikely that gas storage on site, even allowing for some additional gas storage in the digestors following the anaerobic digestion process, would exceed the 7.6 tonne level.

7.4.18. Verification of the figures provided in Appendix 5.1 of the EIAR is not possible as the first party has not detailed the necessary information in terms of total storage volume, operational storage volume, gas mix and weight and storage pressures all of which could impact on the calculation. It has also not been clarified if any account has been taken of potential gas storage in the main part of the digestors and why such storage should or should not be accounted for in the calculations. On balance however, on the basis of the calculations set out above and the figures presented by the first party in Appendix 5.1, I consider that the proposed development would not be a Seveso establishment and, in the absence of a clearly justified alternative position from any other party to the appeal, I propose to proceed with the assessment on this basis. To ensure that the facility operates below the thresholds that would result in the site being classified as a lower tier establishment, in the event that the Board grants permission it is recommended that a condition be

attached requires that the operator would demonstrate that the maximum quantity of biogas present on the site would be such that, when taken in combination with the 12 tonnes of LPG storage proposed, the facility would not constitute a lower tier facility under the COMAH Regulations. As set out in the calculations above, this would require the developer / operator of the facility to demonstrate that gas storage on the site in all parts of the facility would not exceed 7.6 tonnes.

7.4.19. In the event that the Board are not in agreement with this position then it is an option for the Board to either request further information from the first party on this issue (including further details of the basis for the calculations in Appendix 5 and how if at all, account has been taken of potential biogas storage in other areas of the plant / tanks) or alternatively to determine that the determine that the development proposed would constitute a lower tier establishment and to issue a notification to that effect.

Legal Issues - Services

7.4.20. The observation submitted by Axis Business Park objects to the proposed development on the basis that the development is proposed to be connected to piped water supply and drainage networks which it is contended are private and in respect of which no consent to such connections has or will be provided. It is also noted that the estate road within the Axis Business Park is a private road, that the additional traffic generated by the proposed development would lead to additional maintenance costs and that it is not therefore considered appropriate that access would be via this route.

7.4.21. With regard to connection to water and drainage networks, I note that the reports on file from the Environmental Services, Road Design and Area Engineer do not make any specific reference to the fact that the networks into which the development proposes to connect are private rather than public. I do however note that Appendix 9 attached to the response to further information submitted by the first party to the Planning authority includes a copy of e mail correspondence including a statement from an engineer in Environment and Water Services stating that '*I have been in contact with the Area Engineer, John Connolly who advises that road is in charge and hence services in charge*'. I also note the content of the letter dated 23rd

October, 2020 from Irish Water and included as Appendix 8 of the response to further information which replies to the pre connection enquiry submitted by the first party. This letter indicates that both the water and waste water connections proposed are feasible without infrastructure upgrades by Irish Water and do not raise any issues regarding ownership or control of the relevant networks. No clear supporting evidence has been provided by the observer with regard to the asserted ownership of these networks and therefore, on the basis of the information available, I do not consider that there is a clear case presented that permission for the development should be refused on this basis. The first party asserts that the networks to which connects are proposed are public and taken in charge and the issue is therefore considered to be a private one between the first party and observer to the appeal (Axis Business Park). Any permission granted would be subject to s.34(13) of the Planning and Development Act which specifies that a person shall not be entitled solely by reason of a permission under this section to carry out any development and in the event of a grant of permission it is recommended that a condition requiring that the submission of a connection agreement from Irish Water would be attached.

7.4.22. With regard to the use of the Axis Business Park estate road to access the site, the EIAR does not make any specific commitment that the Axis Business Park estate road would not be used as an access route to the site. Rather it is stated that '*the HGV traffic will travel via the strategic road network to avoid HGVs passing through residential areas as far as is practicable*'. Access to the site from the regional road network is available via two routes, one via the Axis Business Park and connecting with the R420 Clara Road and the second which involves access from the south via the R443 Erah Avenue. As noted above, there is no indication from the submissions on file that the road onto which direct access to the site is proposed is not a public road and in this regard I specifically note the fact that the report of the Road Design Section on file seeks the payment of development contributions in respect of upgrades to this road and on the basis of the information available it is not possible to substantiate the claim by Axis Business Park that the development would directly impact on private roads.

7.4.23. The submitted EIAR does not provide any clear information regarding the proposed access to the site however the basis of the traffic assessment that informs the

relevant section of the EIAR ((Chapter 14 – Material Assets Transport) relates to the impact on the L-2007 / R443 junction to the south of the site. It is therefore assumed that the bulk of traffic accessing the site is proposed to access the site from the south rather than via the main part of the Axis Business Park. The practicality of restricting access to the site to only the southern route via the L-2007 / R443 roundabout is questioned by observers to the appeal, however in the event of a grant of permission I consider that it is open to the Board to require the submission of a mobility plan that would set out the haul routes to and from the site for the agreement of the Planning Authority. This issue is referenced in the discussion of traffic under the heading of EIA below.

Public Consultation

7.4.24. A number of observers to the appeal and specifically the submission received from the Rahan Road Residents Association, raises concerns regarding the lack of consultation prior to the submission of the application and that the offer of meeting with the local interests was only offered close to the end of the period for submissions to the planning authority. In response, the first party states that their representatives appeared on radio to discuss the project. Consultation with third parties is not a statutory requirement under the Planning and Development legislation and I would also note the fact that Covid 19 resulted in public meetings not being feasible in the period immediately prior to the submission of the application. .

8.0 EIA

8.1. Introduction

8.1.1. The application is accompanied by an EIAR. The submission of an EIAR is mandatory on the basis that the proposed development would have an intake of material of approximately 50,000 tonnes per annum and would therefore exceed the threshold set out in Class 2(b) of Part 2 of the Fifth Schedule of the Planning and Development Regulations, 2001 (as amended) which states that the following development requires EIA:

> *'Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this schedule.'*

8.1.2. The submitted EIAR is prepared by Malone O'Regan Environmental and comprises three volumes. Volume 1 comprises the non-technical summary, Volume 2 contains the main volume of the EIAR and is supplemented by Volume 3 which contains the appendices with additional detail under a number of the headings. The assessment methodology is set out in section 1.8 of Volume 2 and details the methodology used in the categorisation of effects. Details of the project team and their associated qualifications is set out at section 1.11 of Volume 2 of the EIAR and external consultants used in various aspects of the report are detailed in Table 1-11 of the same volume. From a review of the information presented I am satisfied that the EIAR has been prepared by competent experts.

8.1.3. The application has been prepared under the provisions of the 2014 EIA Directive and I have undertaken an examination of the information presented by the applicant including the EIAR and the submissions made during the course of the appeal. A summary of the results of the submissions made by the Planning Authority, prescribed bodies, appellant's, and observers has been set out at sections 3.5 and 6.0 of this report. The main issues raised with regard to EIA can be summarised as follows:

- Impact of increased traffic,
- Odours, including from transport of materials and from the spreading of digestate,
- Potential noise emissions especially at night,

- Potential for spillages and impact on ground and surface waters. Especially noted that the site is in an area of extreme groundwater vulnerability.
- Potential for fire risk / hazard and risk of explosion. There is a record of incidents in the UK and other locations,
- Impact of construction traffic not assessed in the EIAR.
- That the environmental impacts of the connection of the development to the gas network has not been included in the EIA.
- Inadequate consideration of alternatives and that a location outside of a town would be more appropriate.
- It is considered that the Planning Authority has refused permission on the basis of an incorrect assessment and that Chapter 9 of the EIAR relating to air quality complies with the requirements of the directive as it provides a baseline assessment, identifies potential direct and indirect sources emissions to air and their significance and mitigation measures.
- The submitted air dispersion modelling (submitted with appeal) relating to the proposed on site boiler removes any doubt as to the impact of the proposed development and shows that the impacts would be in accordance with those predicted in the EIAR.
- That the statement that sufficient water to serve the development would be obtained from rainwater harvesting is not realistic.
- That the groundwater vulnerability in the area is high and the implications of a leak to groundwater are extreme. The overall risk to local groundwater is therefore profound. It is not clear from the information submitted if the proposed development is within the identified zone of influence of the Durrow and Arden aquifers.
- That the proposed development will result in emissions of methane and other volatile organic compounds, PM10 and 2.5s and hydrocarbons.
- There is potential for greater pollution in the event that the future feedstock to the plant is changed.

- That the potential for bio aerosols in the operational phase of the development cannot be discounted.
- That the issue of dust emissions and monitoring was not addressed in the EIAR.
- It is not clear that the same HGV can be used to transport feedstock to the anaerobic digestor as will be used to transport digestate from the site.
- No assessment in EIAR of fire water retention in the event of an incident.
- Visual impact on residential areas not assessed and impact of flare stack.
- That there is no community gain or employment benefit from the development.
- That the EIAR is incomplete because it did not assess the complete scope of works. This has not occurred in this case as it has not assessed the gas connection and there is no assessment of the capacity of the sewer.

8.1.4. ***Cumulative impacts*** arising from the proposed development are considered in each chapter of Volume 2 of the EIAR under the relevant heading. The approach used is in my opinion comprehensive and consistent with the requirements of the 2014 EIA Directive (2014/52/EU) and Article 94 of the Planning and Development Regulations, 2001 (as amended).

8.1.5. With regard to ***Alternatives***, as the EIAR is submitted in accordance with the requirements of Directive 2014/52/EU, what is required is a description of the reasonable alternatives studied by the developer which are relevant to the project and its specific characteristics and '*an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment*'. Consideration of alternatives is presented at Section 4 of Volume 2 of the submitted EIAR and incorporates the following:

- Alternative Locations. The EIAR sets out how the choice of location was a combination of areas where there is a high demand for gas and proximity to the GNI grid. Availability of feedstock, location relative to sensitive receptors and designated sites and accessibility by road are also identified as locational

factors. Stated that industrially zoned lands were focussed on due following consultations with the council.

- Alternative Design and Layout. Three potential layouts are presented in the EIAR (Figures 4.1 – 4.3) and demonstrate the development of the layout over the course of the design phase, including revisions to bunding requirements, access / vehicle movements within the site and on site storage.
- Identification and development of Preferred Design. The finalised design is presented in Figure 4.3.
- Other Alternatives including the 'Do Nothing ' Scenario.

8.1.6. The information presented in the EIAR regarding alternatives was expanded upon by the request for further information and subsequent response of the applicant. Section 2.0 of this response sets out how the Tullamore area was selected as a suitable location for the siting of an anaerobic digestor plant for a series of reasons including the proximity to the gas network, high level of gas demand in the area, availability of feedstock within a 10-15km radius, roads infrastructure and the fact that there is '*sufficient excess supply of feedstocks in the Midlands, Mid-East and Dublin Regions to which Tullamore is central*'. Submitted that a number of sites in the Tullamore area were examined but that these cannot be identified for reasons of commercial sensitivity and GDPR. It is also referenced that the location of the site was guided by the outcome of a pre-application consultation meeting held with the council where there was a preference that such a facility would be located on industrially zoned lands. Table 2-1 of the RFI sets out some additional details regarding the rationale for the change in the layout from Layout 1 to 2 and finally the final Layout 3.

8.1.7. Overall, on the basis of the information contained in Volume 2 of the submitted EIAR and the further elaborations contained in the response to further information submitted to the planning authority, it is my opinion that the aspects of the proposed development provided incorporate the main alternatives that are relevant to the form of development proposed and that the consideration of alternatives is consistent with the requirements set out in the directive.

8.1.8. With regard to the vulnerability of the project to ***Major Accident Hazards, Natural Disasters and Climate Change***, the appeal site is not located close to any Seveso establishment and, as set out at section 7.4 of this assessment above, the nature of the proposed use on the site is not such that the provisions of the COMAH Regulations are applicable to the development. As set out at Section 1.10 of Volume 2 of the EIAR, the risk of major accident hazards has been considered in the EIAR under a number of topic headings which have been assessed as relevant to such potential scenarios. These headings include Population and Human Health, Biodiversity, Land and Soil, Water and Air Quality and I agree that these topics are the most relevant sections of the EIAR under which the risk of accidents and unplanned events fall to be assessed. The assessment contained in the relevant sections indicates that the proposed development would present some potential hazards in the form of the storage of biological agents on the site, gas hazards, and explosion and fire hazards. These issues are considered further in the relevant section of the EIA below, however there are a number of mitigation measures proposed that address the risks arising under the heading of major accident hazards, natural disasters, and climate change. These include the following:

- The pasteurisation of digestate to prevent the transfer of pathogens and microbial testing,
- Monitoring of the on site anaerobic digestion process and pipework,
- Odorization of gas and use of flare in event of excess gas production or issues relating to export to the grid.
- Requirement for an application to the Commission for Regulation of Utilities (CRU) regarding safety and the management of risks '*as low as reasonably practicable*'. These measures include gas analysis in real time and ability to remotely reject gas if it is not up to the required standard. No on site storage of gas is proposed in the design.

8.1.9. Under the heading of Land and Soils section 7.4.2 notes that normal operation of the development is not considered likely to result in impacts on land or soils. The design incorporates an extensive hardstanding area that houses all the main digestors and storage areas and this is proposed to be bunded. Any spills are likely to be contained within the drainage system which is proposed to be a closed system

including an attenuation tank and any spillages can be contained. In the event of a fire, a fire prevention plan is proposed to be implemented and the facility will require a fire safety certificate. The drainage system is proposed to include an emergency shut off valve that would contain any fire water in the event of a fire. As discussed in more detail in section 8.4 of this EIA below under the heading of Land, Soil, Water, Air and Climate, no element of the proposed development is located within an identified flood extent area and no flood events are recorded for the immediate vicinity of the site. Having regard to these factors, it is considered that the risk of major accident hazards or potential implications arising from natural disasters and climate change are low.

8.1.10. Finally, with regard to the scope of the EIA, as set out at section 7.4 of this assessment under the heading of Gas Connection, the submitted EIAR states at Paragraph 1.4 that the gas connection will be undertaken as exempted development and is not considered further in the EIAR. Given the fact that the substantive project requires EIA this is not considered to be appropriate and consideration of the environmental impacts of the proposed gas connection is considered to be required notwithstanding the fact that it does not form part of the application which is the subject of appeal. As set out at section 7.4 of this report, it is my opinion that there is adequate information on file, including in the original application documentation and the response to further information submitted to the planning authority to enable the Board to undertake EIA that includes consideration of the likely significant environmental impacts arising from the gas connection. For the avoidance of doubt, the following assessment includes consideration of the likely significant effects of the proposed development on the environment inclusive of the gas connection.

8.1.11. In conclusion, I am satisfied that this EIAR has been prepared by competent experts to ensure its completeness and quality and that the information contained in the EIAR and supplementary information provided by the first party as part of the appeal, adequately identifies and describes the direct, indirect, and cumulative effects of the proposed development on the environment and complies with the requirements of Article 94 of the Planning and Development Regulations, 2001 (as amended).

8.2. **Population and Human Health**

Population

8.2.1. The proposed development will have impacts on the ***population*** in terms of increased ***economic activity and employment*** during the construction phase in particular. The construction phase is estimated to take approximately 12 months and to lead to the creation of between 50 and 70 direct jobs. The proposed development will therefore have a short moderate positive impact in terms of employment and economic activity. During the operational phase, the development is proposed to lead to the creation of 4-5 full time jobs directly connected with the site. The level of long term employment benefits arising from the development is therefore slight.

8.2.2. The proposed development is not considered likely to have a significant impact on the ***pattern of land use*** in the vicinity of the site. Issues related to human health arising from the development are considered below and in subsequent sections relating to air and water, however conclusions of these assessments is that the proposed development would not be likely to have a significant negative impact on human health or the amenity of developments and land uses in the vicinity of the site. A number of observations to the appeal note the fact that the appeal site and lands to the north and west are proposed under the *Draft Offaly County Development Plan, 2021-2027* to be rezoned from their existing Industrial zoning to 'Business and Technology' and contend that the proposed development would be inconsistent with this proposed zoning. Firstly, as highlighted in section 4.2 above, the Draft Offaly County Development Plan has not yet been adopted and is not the plan in effect at the date of writing this report. It is also noted that under s.34(2)(a) of the Act the Board is not bound by the provisions of the development plan in making its decision and that, as also set out at 7.3 above, none of the uses identified in the land use zoning matrix in the draft plan are clearly consistent with the current proposal and that uses not identified in the matrix are to be assessed on their merits.

8.2.3. In terms of the potential impact on future pattern of development in the vicinity, I note that the appeal site is located at the far southern end of the area proposed to be zoned 'Business and Technology' under the Draft County Development Plan with lands to the south (the Chadwicks site) and to the east on the opposite side of the

estate road proposed to remain zoned 'Industrial and Warehousing'. Taken in conjunction with the assessment set out below in terms of Human Health, Air, Water and Material Assets, I do not consider that the development of the appeal site as proposed would act to fragment or impact in a significantly way on the future development of the overall parcel of lands that are proposed to be zoned for business and technology use.

8.2.4. No direct issues of impacts on ***rights of way or severance*** would arise from the proposed development and the change of use of the site from agricultural to industrial use. As noted in section 7.4 above, the owners of the Axis Business Park have queried the right of the first party to connect into public services and to use the existing Axis Business Park road infrastructure. There is no clear evidence available indicating that the road onto which direct access to the site is proposed is not a public road. Issues relating to site services, road access and traffic implications are considered in more detail at section 8.5 of this assessment under the heading of Material Assets, Cultural Heritage and the Landscape.

8.2.5. With regard to ***tourism***, the appeal site is located in an area of low landscape sensitivity and in an area that is characterised by significant commercial and industrial development with significant additional lands zoned for such uses in close proximity. The site is not located on or close to any recognised tourist route and is visually separate from significant tourist and amenity attractions and corridors in the vicinity including the Grand Canal which is located c.800 metres to the south.

8.2.6. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on population. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Human Health

8.2.7. With regard to human health, the proposed development will have a potential impact on surrounding populations in terms of the potential impact of the development on noise, air quality / odour and water quality in particular. The nature and scale of the development also has potential impact on population arising from impacts on landscape and also on material assets and specifically traffic. These issues are considered in greater detail in section 8.4 and 8.5 of the EIA below under the headings of Land, Soil, Water, Air and Climate, and Material Assets, Cultural Heritage, and the Landscape, however the following is a brief assessment of these environmental factors as they potentially impact on human health. The potential for the proposed development to give rise to a fire and explosion risk is also recognised.

8.2.8. With regard to ***fire and explosion risk*** and the potential impact on populations and human health, the appeal site is not located close to any Seveso establishment and, as set out at section 7.4 of this assessment above, the nature of the proposed use on the site is not such that the provisions of the COMAH Regulations are applicable to the development. The nature of the proposed development is such that it would present some potential hazards in the form of the storage of biological agents on the site, gas hazards, and explosion and fire hazards. The EIAR sets out a range of mitigation measures that seek to address these risks and these range from design mitigation to measures proposed in the operation of the facility. The most significant of these mitigation measures from the perspective of fire risk are considered to be as follows:

- The fact that the site will require animal by product approval from the department of Agriculture, Food and the Marine will mean that a series of operational measures will be required to be implemented including those listed at 5.4.4.1 of Volume 2 of the EIAR, including cleaning, vermin control pasteurisation of digestate prior to land spreading and microbial testing.
- That the nature of the development is such that a Safety Case will need to be submitted to the Commission for Regulation of Utilities (CRU) which will set out in detail how the operator will manage the risks associated with the presence of gas and associated hazards at the site. Mitigation is identified at 5.4.4.1 of the EIAR and includes real time monitoring of gas generation and

pipe networks, regular onsite inspections, odorization of gas and the use of a flare to control / regulate the onsite quantity of gas on the site.

8.2.9. In the event of a fire, a fire prevention plan is proposed to be implemented and the facility will require a fire safety certificate. The drainage system is proposed to include an emergency shut off valve that would contain any fire water in the event of a fire. As discussed in more detail in section 8.4 of this EIA below under the heading of Land, Soil, Water, Air and Climate, no element of the proposed development is located within an identified flood extent area and no flood events are recorded for the immediate vicinity of the site. Having regard to these factors, it is considered that the residual risk of fire and explosion risk is limited and can be adequately mitigated by the measures set out in the EIAR.

8.2.10. I note that concerns have been raised by third parties regarding the appropriateness of the ***unmanned operation of the facility*** during one of the three proposed shifts and that no staff would be on site during the night shift. The EIAR details how the site would be the subject of remote monitoring during the unmanned shift and staff would be on call in the event of any issue being detected by the monitoring. In my opinion this operating scenario is acceptable and such that significant negative issues in terms of operational safety, impact on human health or impacts on the environment from such a staffing roster are unlikely to arise.

8.2.11. With regard to ***noise***, as set out at 8.4 of this assessment below, the nature and location of the proposed development is such that there is the potential for negative noise impacts to arise during both the construction and operational phases of the development. The fact that the facility is proposed to operate on a 24 hour basis is noted and has been highlighted in third party submissions as a concern.

8.2.12. Baseline noise assessment and noise prediction modelling are detailed at Chapter 11 of the EIAR and the methodologies used in these assessments are noted and considered appropriate. Baseline noise monitoring information is presented at Tables 11-6 to 11-8 of the EIAR and indicates that the existing level of ambient noise is moderate and dominated by noise generated by roads, rail, and commercial / agricultural activity. The location of the NSLs identified and used in the noise assessment are in my opinion appropriate and representative of the main noise sensitive uses and clusters in the vicinity of the site. Construction noise impacts

from the various phases of the construction activity are not considered likely to exceed the relevant BS standard for construction activity at construction and open sites (BS5228-1). Similarly, the predicted operational phase noise impacts as detailed in table 11-12 of the EIAR indicate that operational phase noise impacts at all NSLs are predicted to be within EPA day, evening and night levels with predicted operational phase noise being at or below the ambient levels at the majority of locations. On the basis of the information available on file I do not consider that noise impacts would have a significant negative impact on surrounding properties and land uses and I do not therefore consider that it is likely that human health would be likely to be significantly impacted as a result of noise generated by the proposed development.

8.2.13. The impact of ***air quality*** is considered at Chapter 9 of the EIAR and a detailed assessment of the impact of the proposed development on this aspect of the environment is considered in detail at section 8.4 of this assessment. As set out in that section, the proposed development will have potential impacts during construction and operational phases of the project. Construction phase impacts, both direct from the construction activity on site and indirectly from off site transport of materials and vehicle movements are not considered likely to be such as to lead to a significant negative impact on the environment. At the operational phase of the project, the development has the potential to impact on air quality due to emissions from the anaerobic digestion process including proposed on site flare, from the on site operation of the proposed 4.5MW boiler, and also from the indirect emissions due to transport to and from the site. As set out in section 8.4, following mitigation, the proposed development is not considered likely to have significant negative impacts on air quality. As part of the first party appeal an air dispersion modelling assessment of the likely impacts of the on site generator was undertaken and I consider that this adequately demonstrates that no significant impacts on air quality would arise and that the basis of the reason for refusal issued by the Planning Authority has been adequately addressed.

8.2.14. Overall, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on human health. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

8.3. Biodiversity

8.3.1. The impact of the proposed development on biodiversity is addressed at Chapter 6 of Volume 2 of the EIAR. This section should be read in conjunction with section 9.0 below under the heading of Appropriate Assessment.

8.3.2. The proposed development is not located within or close to any European site and would not have any direct effects on any such sites. As per the assessment contained at section 9.0, the proposed development is not considered to be likely to have significant effects on any European sites in light of their conservation objectives.

8.3.3. In terms of general ecology, the proposed development has the potential to impact directly by way of direct habitat loss and indirectly by way of disturbance during both the construction and operational phases. The nature of the existing habitat on the site is set out at section 6.3.2 of the EIAR and this notes that the site comprises a mixture of improved agricultural grasslands and hedgerows. At the time of inspection of the site it was observed that the two fields that comprise the site had been ploughed for the planting of crops. The site is located in a semi-rural area at the edge of the existing developed area of Tullamore. Lands to the west and north of the site are undeveloped and in agricultural use. Given the existing modified agricultural habitat of the site the overall biodiversity value is considered to be low although the existing mature hedgerows along the eastern, southern, and western have a higher biodiversity importance and are potential habitat for bats.

8.3.4. The appeal site is stated to have been the subject of a field survey undertaken in June, 2020 however no specific surveys for birds, bats or other species are recorded in the EIAR. The site was however the subject of assessment regarding the potential for it to support birds, (particularly breeding birds or rare species), bats and badgers. Table 6.3 of Volume 2 of the EIAR sets out the protected or notable species (both bords and mammals) that a desk survey has identified as being present within 2km of the site.

8.3.5. The proposed development would result in the removal of existing boundary hedgerows along the eastern boundary and the hedgerow across the middle of the site. These hedgerows are potentially important habitat for breeding birds and also as potential breeding and foraging areas for bats. The development of the site would also result in the direct loss of modified agricultural lands. In terms of indirect effects, the proposed development would have the potential to result in disturbance in the form of light and noise.

8.3.6. The nature of the existing habitat is such that the birds that can reasonably be expected to be found on the site are common species that are not of any particular biodiversity significance. Table 6-3 of Volume 2 of the EIAR identifies a number of bird species that are legally protected or otherwise notable that have previously been recorded within 2km of the site. Paragraph 6.3.3 of the EIAR states that no species of particular ecological significance were recorded as being present on the site and, while the EIAR does not specifically record the species observed at the time of the field surveys, the nature of the site is such that I would agree with this conclusion. Mitigation in the form of measures for the protection of boundary trees and hedgerow during the construction phase of the development and these measures include the fencing off of such areas within a construction exclusion zone and establishment of a root protection area. Mitigation in the form of the planting of a new hedgerow along the northern and eastern site boundaries is also proposed and any impact on bird nesting habitat arising from the loss of the roadside hedgerow would be temporary and slight negative. At operational phase, the replacement and new planting proposed would result in a net increase in hedgerow habitat on or bounding the site and the long term impact from the development in terms of potential nesting habitat is therefore considered to be at worst neutral. Significant alternative nesting and

foraging habitat are available for birds in the undeveloped rural areas surrounding the site.

8.3.7. As detailed in section 9.0 of this report below under the heading of Appropriate Assessment – Screening, the only ***SPA site*** located within 15km of the appeal site is the Slieve Bloom SPA which is located just inside a 15km radius. Having regard to the conservation objectives of this site and the separation distance between the appeal site and this European site, the proposed development is not considered likely to have significant effects on this European site.

8.3.8. The potential for the site to be a significant habitat supporting ***bats*** is noted in Paragraph 6.3.3 of the EIAR. Specifically, the location of the site with hedge lines on three sides of the site and in the wider area is noted as are records of the presence of four known bat species within 2km of the site. As noted above, the construction phase of the proposed development will result in some temporary loss of hedge lines and therefore some potential short term reduction in bat foraging habitat. The construction and operational phases have the potential to impact on bats by disturbance and lighting. At operational stage the development proposes replacement hedgerow along the roadside (east) boundary as well as along the northern boundary. During both construction and operational phases, regard should be had to the fact that the hedgerows are actively managed and are located in close proximity to existing developed industrial areas thereby reducing their potential bat foraging significance. No bat commuting pathways would be severed by the proposed development. In terms of lighting, construction works are not generally proposed to be undertaken outside of daylight hours and where such works are proposed mitigation in the form of consultation with the project ecologist is proposed. At operational phase, section 6.6.2.1 of the EIAR sets out measures for the minimisation of excessive lighting and avoidance of light spillage from the site. Subject to such mitigation measures being implemented I consider that the impact on foraging and commuting bats due to light spillage would be limited.

8.3.9. In terms of roosting potential, there are no existing structures located on the site that would comprise potential roosting habitat. The site was the subject of assessment for bat roosting potential which identified a single mature tree located close to the north west corner of the site as the sole feature that has potential given its coverage with ivy and cervices within the tree structure. Mitigation measures set out in the

EIAR include the use of a construction exclusion zone around this feature to ensure that it is not impacted during construction works and that development is set back such as to ensure its protection during the operational phase. No hedge cutting or removal works are proposed to be undertaken during the breeding season. Overall, the impact of the development on bat roosting during the construction and operational phases is not considered likely to be significantly negative.

8.3.10. The EIAR notes that no observations of ***badger*** were made at the site and no signs of badger activity recorded. Similarly, there is no record of badger activity at the site recorded in the National Biodiversity Data Centre records. The site is not characterised by any watercourses either on or in close proximity to the site and therefore while the EIAR recognises that there is potential that the wider area would be utilised by badgers, it is not considered likely that the proposed development would have a significant negative impact on this species during either the construction or operational phases. No other forms of mammal are recorded as being present on the site. Mitigation in the form of pre-construction survey of the site to ensure that mammals are not present is proposed and mitigation to protect mammals where deep excavations are proposed to be implemented. Overall, the proposed development is not considered to have a significant negative impact on any mammal species during either the construction or operational phases.

8.3.11. No evidence of ***invasive species*** were identified during the course of the site surveys undertaken and no evidence of such species were observed at the time of inspection of the site. The construction phase of the proposed development has potential to introduce invasive species onto the site either through material imported onto the site or on construction equipment or machinery. Construction mitigation in the form of good construction practice is proposed to ensure that the risk of transportation of invasive species onto the site during construction is minimised. Subject to such mitigation I do not consider it likely that there would be significant impacts arising with regards to invasive species.

8.3.12. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on biodiversity. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative

impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

8.4. Land Soil Water Air and Climate

Land and Soil

8.4.1. Land and soils are addressed at Chapter 7 of Volume 2 of the EIAR. The site was the subject of a desk based study that informed the EIAR and the basic bedrock geology comprises limestone (see Figure 7-1 of Volume 2 of EIAR). This bedrock is overlaid by soils that derive from limestone. The site was the subject of a topographical survey undertaken in March 2020. This survey indicates that the site slopes by approximately 2 metres from northeast to the southwest and that the highest point on the site is c.66 mAoD.

8.4.2. During the construction phase of the development there are a number of potential impacts on soils and land that could arise. These include spillages from onsite construction equipment, spillages from the storage of materials and fuels / oils on the site and the potential for compaction of the ground from construction activity. The proposed development will also require the removal of topsoil to facilitate construction. The potential impacts on land and soils arising from spillages at the site during the construction phase are slight to moderate negative.

8.4.3. At the operational phase, similar issues in terms of potential spillage and discharges to ground arise. At this phase however the potential discharges to ground comprise process emissions such as leakage of slurry or other feedstock material, spillages of chemicals, failure of one of the tanks or piping infrastructure. The potential impacts on land and soils arising from spillages at the site during the operational phase are slight to moderate negative. The risk of unplanned events such as an accident, fire or leakage of process liquids or fire waters to the ground during the operational phase in particular is also recognised as a risk in the EIAR (paragraph 7.4.3 of Volume 2).

8.4.4. Mitigation to address the potential impacts on land and soils at both construction and operational phases. In terms of design, it is proposed that would utilise the site contours to minimise the extent of cut and fill that would be required on site. No

material balance in terms of materials input / output from the site is provided with the application, however the EIAR notes at 7.4.1 that the bulk of the topsoil that is proposed to be stripped from the site to facilitate construction will be reused in the construction of the berms along the eastern and northern boundaries.

8.4.5. Mitigation to address the potential impacts during the construction phase include the preparation of a Construction and Environment Management Plan (CEMP) which will set out general construction related mitigation measures to be implemented on the site. The CEMP will specifically include measures related to the storage of oil and other fuels on the site during the construction phase and the handling of such materials. These mitigation measures are set out at paragraph 7.5.1.2 of Volume 2 of the EIAR and include the bunding of all oil storage areas and fuel tanks and procedures regarding the onsite refuelling of machinery. Mitigation in the form of procedures for the handling of cement on site is detailed at paragraph 7.5.1.3. Subject to the implementation of the mitigation measures proposed I consider that the likely potential impacts on land and soils arising from the construction phase of the development would be slight negative.

8.4.6. Operational phase mitigation to address the potential for discharges to soil and land are set out at paragraph 7.5.2 of the EIAR. These measures include that all bunds on site would be designed to have capacity for 110 percent of the largest capacity storage vessel. The Site Layout (Drg. No.P803) indicates how all of the main tank areas including the three digestors, two storage tanks, manure reception tanks and buffer tank are all located within an impermeable surfaced and bunded area on the site. The completed development is also proposed to operate with a closed drainage system and that the drainage system would contain an emergency shut off value. In the event of a fire, the fire waters would be contained within the bunded area and the drainage could be shut off to prevent discharge of contaminated waters from the site. The development will require a Fire Safety Certificate and a fire safety plan is proposed to be prepared and implemented. For deliveries, operational procedures to be followed to prevent leaks or discharges are to be set out in an Environmental management System to be developed for the site. Subject to the implementation of the mitigation measures proposed I consider that the likely potential impacts on land and soils arising from the operational phase of the development would be slight negative.

8.4.7. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on land or soils. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Water

8.4.8. Water is addressed at Chapter 8 of Volume 2 of the EIAR and includes a screening for flood risk. The water receptors in the vicinity of the site are identified in Figure 8-1 of the EIAR and the overall site and surrounding area is located within the River Shannon Catchment. The main water features located in the general environs of the site are the Grand Canal Main Line which runs east to west c.1.1km to the south of the site at the closest point and the Tullamore River which is located c.1.4km to the south of the site at the closest point. The Tullamore River connects with the River Clodiagh c.4km to the west and then onwards to the Brosna River a further c.4.5km to the west of the site. To the north of the site, the River Silver (Tullamore River) flows westwards at a separation of c.1.5km from the appeal site at the closest point and connects with the River Clodiagh approximately 9.5km to the north west of the site. There are no waterbodies located on or in very close proximity to the appeal site. Paragraph 8.3.1.3 of Volume 2 of the EIAR summarises the water quality status of the above watercourses which range from moderate in the case of the Tullamore River and good in the case of the Grand Canal and River Silver.

8.4.9. The available aquifer information is presented at Paragraph 8.3.2 of the EIAR and indicates that the aquifer underlying the site is of regional importance and is karstified dominated by diffuse flow. As noted in the EIAR, there are no karst features on the site or in close proximity to the site and based on information from the GSI website (data viewer) there is no record of such features being located within 2km of the site. The risk of groundwaters being contaminated arising from operations at the site and the potential for contamination of water sources has been

raised in a number of observations to the appeal and is discussed in more detail below.

8.4.10. At ***construction stage***, the general construction activity has the potential to impact negatively on water through the potential for spillages of oils or other fuels on the site and also from the potential for the mobilisation of material from the stripping of the soil from the site. There are no surface water features located in close proximity to the site, however there is potential for construction discharges to impact primarily on ground waters. Mitigation to protect water during the construction phase comprises the implementation of a construction and environmental management plan (CEMP) and specific measures identified include the use of spill kits, training of construction staff and the storage of any contaminated material in sealed containers prior to discharge off site. Detailed mitigation to protect groundwater from contamination from oil storage or refuelling operations and cement handling are proposed to be included in the CEMP and are detailed at section 7.5.1.2 and 7.5.1.3 of the EIAR. Measures for the management of stockpiled materials is not specifically addressed in the EIAR. The EIAR does however state that it is anticipated that the bulk of the soil stripped from the site can be used in the perimeter berms along the northern and eastern site boundaries and it is therefore anticipated that these features would be created at an early stage in the construction process. The absence of surface water drainage features on or in close proximity to the site and the relatively flat topography means that the potential for the mobilisation of stored materials and siltation of surface water courses is considered to be limited. Subject to the implementation of the proposed measures it is not considered likely that the construction phase of the proposed development would give risk to significant risks to surface or ground water.

8.4.11. The ***operational phase*** of the development has more significant potential for impacts on water. Specifically, the nature of the materials proposed to be imported to the site as feedstock is such that it has significant potential for contamination of ground and surface waters were it to be released. Similarly, the operational equipment on site in the form of the digestors, pipework and storage tanks have the potential to have significant negative impacts on water in the event of accidental discharge. A potential 'downstream' indirect impact of the proposed development arises from the off-site disposal of digestate from the proposed development and the

spreading of such material could have negative impacts on both ground and surface water quality.

8.4.12. A range of mitigation measures are proposed in order to limit the potential for such construction phase impacts. As detailed in Chapter 7 of the EIAR under the heading of Land and Soils, the design of the development has been undertaken to ensure that the chances of operational phase spillage or leakages are minimised. Bunding of all the main tank and pipework areas is proposed and materials on site will be stored and moved in accordance with EPA guidance and in accordance with the EPA licence which will be required for the operation of the facility. The Industrial Emissions licence will include the implementation of an Environment Management System (EMS) and preventative maintenance measures implemented. The proposed on site drainage system includes an attenuation tank that would enable on site storage and it is proposed that the drainage system would be fitted with an emergency shut off valve that could be activated in the event of a pollution incident. The fact that the ground conditions are such that it is classified as being of extreme vulnerability is noted, however subject to the mitigation measures set out above, the likelihood of significant negative impacts on groundwater arising during the operational phase of the development are not considered likely to be significant.

8.4.13. Third party submissions on file also raise concerns regarding the potential for the operational phase of the proposed development in particular to have a negative ***impact on groundwater sources*** in the vicinity of the site. With regard to public supplies, it is contended in the third party submission that it is not clear from the information submitted if the proposed development is within the identified zone of influence of the Durrow and Arden aquifers which supply drinking water to Tullamore. The EIAR indicates that there are a total of 13 no. groundwater wells recorded within a 2km radius of the appeal site and these are presented at Figure 8-4 of the EIAR. Figure 8-4 indicates that there are no source protection zones located within the 2km radius of the site, however a review of the source protection zone presented at Map 10.2 of the current *Tullamore Town and Environs Development Plan, 2010-2016* (as extended) indicates that the outer extent of the source protection area for the closest of these sources is within 2km of the site. In any event, as per Map 10.2, the appeal site is located well outside of the closest part of the identified source protection zones for the Tullamore water supply schemes and

therefore subject to the implementation of the mitigation measures set out in the EIAR, no significant impacts on these public water supply sources are considered likely to arise.

8.4.14. Third party submissions received also raise concerns with regard to the ***potential for fire water to be a source of pollution*** in the event of a fire at the operational phase of the development. Table 8.1 and section 8.4.3 of the EIAR relates to unplanned events and, while it does not specifically address the potential for fire water discharge on site in the event of an incident, the mitigation measures outlined in respect of spillages and discharges of surface waters are in my opinion applicable to an instance of fire water discharge on site. The relevant mitigation measures include the fact that the surface water drainage system includes an attenuation tank that would enable significant quantities of water to be stored. The bulk of the site operational areas are also bunded which would provide storage in the event of a fire incident and additional measures in the form of shut off valves on the surface water drainage system are proposed to be installed. The level of fire risk arising from the process proposed on site is not specifically detailed, however the input materials are not such that they would generate a significant risk. Overall, having regard to the nature of the input materials and materials proposed to be stored on the site, the nature of the proposed process and the design of the site drainage system including bunding, hard surface areas and underground attenuation, I do not consider that the risk arising from the potential discharge of fire water on the site is such as to have a likely significant negative impact on the environment by way of impact on surface or ground waters.

8.4.15. The potential for the site to be the subject of ***flooding*** is referenced at section 8.4.4 of the EIAR and it is stated that the OPW Flood Risk mapping does not indicate any risk of flooding within the site. Map 10 of the Tullamore and Environs Development Plan, 2010-2016 indicates the 1 in 100 year flood zones based on the CFRAM studies at that time (2010). While now dated, this information indicates that the appeal site is well outside of the 1:100 year flood risk zone with the main area of risk located to the south east of the town and in the town centre along the alignment of the Tullamore River. More recent OPW CFRAM mapping indicates the main areas of flood risk as being located to the west of the town and not in any proximity to the appeal site. Surface water design measures proposed to be implemented on the site

propose that on site SuDS and surface water attenuation measures would be implemented to ensure that the surface water generated from the eastern side of the site would be attenuated to greenfield runoff rates prior to discharge to the surface water drainage network. As part of the response to further information additional details regarding the storm water flow control and the basis of the calculations provided incorporating a 15-20% climate change factor (rainfall increase) and this information is noted and considered to be acceptable. On the western side of the site, the surface water collected from the access road, silage clamps and all associated plant, wheel wash and hardstanding areas is proposed to be collected in an underground tank (see Drg. No. W20026/P804) and used in the digestion process with c.30 cubic metres of collected water used per day. The nature of this collection process for surface water on the western side of the site is an additional measure that would mitigate operational phase ground and surface water contamination. Overall, on the basis of the information presented, it is not considered that the site of the proposed development is at risk of flooding.

8.4.16. ***Water supply*** to serve the proposed development is proposed to be sourced from the public supply and primarily from the harvesting of rainwater on the site. Section 8.4.2.1 of the EIAR states that the water supply requirements to serve the development during the operational phase of are predicted to be c.250 cubic metres per day. It is stated that '*the proposed development will reuse most of the rainwater that falls onsite*' and this statement has been highlighted by third party submissions who contend that it is not realistic that water supply requirements will be met from water collected onsite. It is not in my opinion completely clear from the wording of 8.4.2.1 that the bulk of water to serve the development would be from recycled water although section 8.4.2.1 goes on to state that '*approximately 0.6 cubic metres of this water will be supplied from the public mains for potable use as detailed in Chapter 3*' and that '*therefore the proposed development will not have a significant impact on water supply in the area.*' Section 3.2.16 of the EIAR states that rainfall from the roof of the feedstock reception hall is proposed to be collected in a rainwater storage tank for use in the process. It does therefore appear as if it is envisaged that the bulk of the water demand from the operational phase of the development would be met by capture and storage of rain water.

8.4.17. Section 4.0 of the Engineering Planning Report prepared by Malone O' Regan and submitted with the application states that a new connection to the existing watermain on the Rahan Road is proposed and that the calculated peak flow requirement is 0.296 l/second. Calculations supporting this figure are provided at Appendix F of the same report. A rate of c.0.296 litres per second would equate to c.25 cubic metres per day and is therefore significantly less than the 250 cubic metres per day specified as required for the process in 8.4.2.1 of the EIAR. The cited peak flow would therefore appear to relate to potable use on site with maybe some small input into the process water demand.

8.4.18. With regard to the feasibility of the bulk of the process water coming from harvested rainwater I would share some of the concerns expressed by the third parties. No calculations indicating how 250 cubic metres per day from on site collection is feasible have been provided and from a rough calculation based on the roof area of the feedstock building being c. 1680 sq metres and an average rainfall in Tullamore of c.940mm per annum the average annual yield from this roof would be c. 1,580 cubic metres. Reference is made in the Appropriate Assessment Screening Report to the reuse of rainwater collected from the hard surfaced areas within the site would be collected within the surface water drainage system and reused in the on site processes. No clear details of the volumes of such surface water that could be reused is presented. It is also not clear from the information available what water demand was used as the basis of the pre connection enquiry submitted to Irish Water and it may well be that Irish Water is in a position to supply a significant quantity of water to serve the proposed development. Given the discrepancy between the stated water demand and the volume capable of being harvested on site the Board may wish to consider requesting further information that would detail the water demand required to serve the proposed development and a breakdown of the sources of this water. On balance however, given that the proposed sourcing of process water supply from a wide range of on site collection sources and the fact that the development will require a connection agreement with Irish Water prior to the commencement of development, it is considered appropriate that this issue could be addressed by way of condition requiring that the developer would enter into a connection agreement with Irish Water prior to the commencement of development. It is also considered appropriate that a condition requiring the developer to submit a

breakdown of water supply sources to the development with associated calculations would be provided for the agreement of the Planning Authority.

8.4.19. With regard to ***foul water / drainage***, the development is proposed to be connected to the foul drainage system immediately adjacent to the site with the foul drain running along the public road. Section 8.4.2.3 of the EIAR states that foul wastewater from the welfare facilities on the site are proposed to be discharged to the foul drainage system. Section 8.4.2.4 states that process water generated by the development is proposed to be reused in the process to create a pulpable mixture and that there would be no process effluent discharged to the sewer or surface waters. Calculations presented in the Engineering Planning report that accompanies the application indicate that the foul drainage calculations are only on the basis of the foul drainage generated by the staff on site and not from any site processes. It is not completely clear from the information on file what happens to the *'pulpable mixture'* and how it is reused in the process or disposed of off-site. The description of the process provided at Chapter 3 of the EIAR (specifically 3.2.8) indicates that the end output from the process would be a digestate that would be dewatered with the solids being removed on a regular basis using a trailer and the liquid being stored in the 2 no. digestate storage tanks.

8.4.20. The operational phase of the proposed development has some potential for indirect negative impacts on ground and surface water quality arising from the production of materials that would be used to be feedstock to the anaerobic digestion process and secondly, arising from the indirect impacts from the disposal of digestate. These potential impacts have been referenced previously at section 7.4 of this report under the heading of Feedstock Mix and Availability. On this issue, it is noted that third party observations on the appeal contend that the EIAR and FI response do not give any clear information on the source of feedstock and the end user of the digestate.

8.4.21. With regard to ***indirect impacts on water quality*** arising from the ***sourcing of feedstock material*** I note none of the feedstock is being produced with the sole intention of being an input into the anaerobic digestion process. Rather, the inputs identified in Table 3-1 of the EIAR are such that they are primarily by products of existing agricultural activity and in the event that the proposed development were not to proceed, would have to be disposed of by alternative means. Relative to the 'do nothing' scenario, I do not therefore see that the proposed feedstock materials can

be seen to lead to the production of additional input / animal by produce material and I do not therefore see that the feedstock requirements for the project are likely to result in any significant additional environmental impacts. In addition, given the volume of material required (50,000 tonnes per annum) and the likely lifespan of the project, the practicality of identifying specific sources for the input of feedstock into the anaerobic digestion process is in my opinion questionable. The feasibility of identifying specific source / feedstock locations that would not change over time is particularly questionable in the event that the feedstock ratios are proposed not to change.

8.4.22. With regard to ***indirect impacts on water quality arising from the disposal or use of digestate*** there are in my opinion 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 a bio fertiliser on agricultural lands. To a significant extent therefore the digestate produced will replace more potentially contaminating raw materials such as slurry and artificial fertilisers which can have other potentially significant environmental impacts. As set out in the point above, in a 'do nothing' scenario, there will be animal by products and other feedstock material that will need to be disposed of, with a significant amount of this material likely to be disposed of by spreading on land. While the disposal of digestate will clearly have a potentially negative indirect impact, particularly on water quality, as set out at sections 2.4.4 and 2.4.5 of the EIAR, the likely impacts arising from disposal of this material are significantly less significant than those arising from the application of artificial fertilisers or the application of slurry / manure. Specifically, as set out in the EIAR, nutrients in the digestate are more freely available for plant uptake leading to improved recycling of nutrients in the environment and the pasteurisation process undertaken on the digestate would reduce potential organic pollution. Also, similar to the situation with feedstock, the practicality of expecting the developer to identify all lands where digestate would be disposed of that would not change over time is questionable.

8.4.23. As highlighted at section 1.4.1 of the EIAR and also at section 2.2 of the Response to Further information submitted to the Planning Authority, the proposed development will be the subject of an Industrial Emissions licence from the EPA and it is anticipated that this licence will include measures to regulate the disposal of the

digestate. The first party state that a nutrient management plan that will need to be prepared in accordance with the licence. The requirement for digestate to be disposed of in accordance with a nutrient management plan would in my opinion successfully mitigate any potential residual indirect impact arising from the disposal of digestate that has gone through the anaerobic digestion process. In the event of a grant of permission the Board may wish to consider the inclusion of a condition requiring the identification and agreement of lands for spreading of digestate with the Planning Authority and that the location, rate, and timing of spreading together with any buffer zones required shall be in accordance with the requirements of the European Communities (Good Agricultural Practices for the Protection of Water) Regulations, 2017. Given the requirement for an IE licence from the EPA, I do not consider that the inclusion of such a condition is necessary or would be consistent with the provisions of s.98 of the EPA Act, 1992 (as amended).

8.4.24. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on water. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Air (Air Quality and Noise)

8.4.25. The issue of air quality and the potential for the development to impact negatively on amenity of surrounding properties and residences due to noise and odour in particular is a key concern raised in the third party submissions on file. The issue of air quality also forms the basis of the reason for refusal issued by the Planning Authority where the refusal cited a failure on the part of the first party to satisfactorily demonstrate that the proposed development would not cause serious air pollution which may have significant effects on the environment and on public health, and specifically that inadequate assessment of the potential impact of the on site 4.5MW generators had been undertaken. Air Quality is addressed at Chapter 9 of the EIAR.

8.4.26. Issues relating to ***noise*** are addressed at Chapter 11 of the main volume of the EIAR and at Appendix 11.1 of Volume 3 of that presents the results of the noise modelling undertaken. This information presented in Appendix 11.1 includes coloured contoured sound mapping.

8.4.27. The proposed development has the potential to have impacts relating to noise during both the construction and operational phases. During construction, which is anticipated to be undertaken over an approximately 12 month period, the construction activity will generate noise that could impact negatively on noise sensitive locations in the vicinity of the site, including residential, commercial and activities undertaken within the Axis Business Centre such as the creche / Montessori use which is highlighted in third party submissions. The operational phase of the proposed development also has the potential to generate noise which could have a negative impact on the amenity of surrounding properties and land uses. Third party submissions received raise concerns with regard to operational phase noise and specifically highlight the potential for noise impacts at night time given the proposed 24 hour operation of the facility.

8.4.28. Noise modelling at the site was informed by the results of noise monitoring undertaken at 5 no. noise modelling locations and these locations are illustrated in Figure 11-1 of the EIAR and described at Table 11-4. These locations are noted and are in my opinion a reasonable basis for the modelling undertaken and are representative of the main noise sensitive uses and clusters in the vicinity of the site. Specifically, NSL 2 is in my opinion representative of the noise environment in the residential area on the Brah Road to the south east of the site and NSLs 3 and 4 representative of residential clusters on the Rahan Road to the south and south west of the site. The noise monitoring undertaken included day, evening and night time periods and a summary of the results of the monitoring are presented at Tables 11-6 to 11-8 of the EIAR. The background noise monitoring was influenced primarily by traffic noise from the R443 and local roads, maintenance on the rail line to the west of the site and industrial / agricultural activity.

8.4.29. Table 11-3 of the EIAR sets out predicted noise emissions during the construction phase of the project with the projected sound power levels of the various phases of construction and relevant equipment set out. Noise levels of up to 87 dB LAeq are anticipated at 10 metres from the source. Figure 11-3 shows the predicted 65dBA

LAeq zones for general construction and road construction with the 65dBA level being the nuisance threshold set out in BS5228-1 which is considered to be appropriate for the circumstances of the proposed development. Only one residential NSL would be located within the 65dBA zone and this is NSL1 which is in the ownership of the landowner of the appeal site. Remaining residential NSLs are predicted to have construction noise impacts significantly below the 65dBA threshold. On the basis of the information on file, I am satisfied that no significant negative impacts related to noise will be generated during the construction phase of the proposed development.

8.4.30. During the operational phase of the project, the typical operational noise sources and associated sound pressure levels are set out at Table 11-11 of the EIAR. The detailed operational phase noise modelling was undertaken using acoustic software with the detailed results presented at Appendix 11-1 of the EIAR. The results of this assessment for the identified NSLs is presented at Table 11-12 of the EIAR and indicates that with the exception of NSL1 (evening) all other locations will have predicted operational phase noise levels that would be equal or less than background levels. The results of the assessment indicate that operational phase noise at all of the identified NSLs would be within the EPA thresholds for day, evening and night time. The most significant impacts are predicted to arise at NSL1 which is the residence owned by the landowner of the appeal site, but noise levels at this location are predicted to be within EPA limits. With regard to the concerns of the third party observers regarding the potential for night time noise, the results show a maximum predicted level of 40 dBA at NSL 1 with levels at NSLs 2 and 3 being 38 and 36dBA respectively. Night time noise levels at NSLs 4 and 5 are predicted to be significantly lower at 31 and 33dBA respectively and therefore only marginally above ambient levels. Overall, on the basis of the information on file, I do not consider that the proposed development would have a significant negative impact on surrounding properties or lands by virtue of noise generated during the operational phase of the project.

8.4.31. Issues relating to ***vibration*** are also addressed at Chapter 11of the EIAR. Given the separation of the site from vibration sensitive land uses and infrastructure, notable from the rail line that is c.75 metres to the west of the site at the closest point, to the nature of the development and the construction activity required, I would agree with

the assessment contained in the EIAR that no significant construction or operational phase vibration impacts are likely to arise.

8.4.32. With regard to ***odours***, given the nature of the proposed development and particularly the input materials / feedstock proposed which include silage, chicken litter and other animal waste materials, there is clearly the potential for the proposed operation of the anaerobic digestor to result in a significant environmental impact due to odours. In addition to odours generated from the site and the operation of the anaerobic digestor, the proposed development has the potential to result in odour impacts for traffic along the route to and from the site by way of the transport of feedstock and, at the end of the process, the transport of digestate off site.

8.4.33. For the assessment of the potential impact of the development in terms of ***odours***, odour and air dispersion modelling was used. The relevant details of the model are set out at 9.2.3 of the EIAR and at Appendix 9.1 of Volume 3 of the EIAR and the model used, and assumptions employed including meteorological data as set out in section 9.3 of the EIAR are noted and considered to be appropriate for the purposes of the assessment undertaken. Results of the modelling are presented for a range of residential (SR1 – SR5) and commercial clusters in the vicinity of the site and these are identified on Figure 9-2 and Table 9-5 of the EIAR. In my opinion these locations are representative of the main receptors that would be sensitive to odours in the vicinity of the appeal site.

8.4.34. In terms of odour standards, guidance from the Irish EPA and from the UK indicates an acceptable range of 1.5 – 6.0 ou_E /m3 when measured as the 98th percentile of one hour averaging periods. Given the nature of the materials proposed to be stored at the site, the selection of an odour limit of 1.5 ouE /m3 as identified at 9.2.3.4 of the EIAR is considered to be appropriate. A number of odour mitigation measures are proposed to be implemented at the site. These are set out at section 9.4.2.3 of the EIAR and include the storage of all solid feedstock materials within the enclosed feedstock hall building. This building is proposed to be filled with an odour abatement system (biofilter) and the building is proposed to be sealed with fast closing doors / openings. I note that third party submissions on file raise concerns regarding the maintenance of this odour system however this would be required in order that the odour emissions would remain within the parameters set out in any IE licence granted by the EPA. Other material storage areas will be designed to

mitigate odour emissions, inclusion the silage clamps that will be covered and the digestate being stored in enclosed structures. In addition, the nature of the anaerobic digestion process is that the digestate will be pasteurised before the dewatering process and odour generating material will be removed prior to the process. The residual odour potential of the final digestate that would be stored on site and transported from the site is therefore low. No odour would be generated from the anaerobic digestors as they are sealed units.

8.4.35. Section 9.4.2.3 of the EIAR states that fugitive emissions from the development were not considered further in the odour dispersion modelling undertaken at the site. This approach is stated to be supported by the odour emissions from such fugitive sources at existing anaerobic digestor sites, however the justification presented at section 9.4.2.3 of the EIAR is not in my opinion completely clear on this issue. On balance however, given the proposed covered storage of the silage clamps, the sealed nature of the anaerobic digestion and associated process and the pasteurised nature of the final digestate, I would agree that the primary source of potential odours generated by the proposed development relate to those generated within the feedstock hall building and dispersed via the proposed biofilter on the air handling system.

8.4.36. The results of the air dispersion modelling indicate a maximum odour level at the 5 representative residential locations SR1-SR5 (see Figure 9.2 and Table 9.5) of 1.05 ouE /m3 and therefore below the 1.5 ouE /m3 limit. The maximum odour level at the identified commercial premises in the vicinity of the site is modelled to be 1.05 ouE /m3 at R2 (the Axis Business Park development to the east of the site). On the basis of the information presented therefore I do not consider that the on site operation of the development would have a likely significant negative impact on the environment due to odours. With regard to the potential for odours to arise from transport of materials to and from the site, the EIAR states that all materials transported to the site would be via covered vehicles. Emissions from such diffuse sources are not specifically modelled by the assessment undertaken and odours generated by such diffuse sources would not likely be covered by an Industrial Emissions licence granted by the EPA. An assessment of the potential for odours generated during the transport of materials to the site also has to have regard to the fact that it is not completely clear from the information provided what route feedstock being

transported to the development would use. The information provided in the EIAR states that access to the site for HGV traffic *'....will travel via the strategic road network to avoid HGVs passing through residential areas as far as is practicable'.* This indicates that it is the intention of the first party that the operational phase haul route to the site would as far as practicable avoid residential areas or concentrations of residential properties including the residential properties on the Srah Road to the south of the site and properties on the Rahan Road. As discussed previously at section 7.0 of this assessment, in the event of a grant of permission it is recommended that the Board would require the submission of a mobility plan that would set out the haul routes to the site for the agreement of the Planning Authority. Subject to such a condition and having regard to the mitigation in the form of the covered nature of the HGVs used to transport material to the site, it is not considered that the proposed development would have a significant negative impact on the amenity of residential properties by virtue of odours.

Air Pollution

8.4.37. The proposed development has potential to impact on air quality in a number of ways. At construction phase, the development has the potential to create dust from on site construction activity and from traffic accessing the site. At operational phase, the development has the potential to have impacts arising from traffic and also in the form of the on site point emission from the stack serving the on site boiler.

8.4.38. With regard to traffic impacts, as noted by the first party at 9.4.2.1 of the EIAR, the level of traffic predicted to be generated by the proposed development during the operational phase are very significantly less than the thresholds set out in the DMRB manual above which a screening model for traffic related air quality impacts needs to be undertaken. At the construction phase, HGV traffic accessing the site is predicted to be c. 5 to 10 on average days over the approximately 12 month construction period with a maximum of 80-100 per day on the 4-5 days where concrete pours are proposed. Even these short term HGV levels are below the thresholds specified in the DMRB for specific analysis and modelling of impacts. Overall, therefore, on the basis of the predicted traffic levels to and from the site during both the construction and operational phases of the development no significant negative impacts on air quality are considered likely to arise.

8.4.39. The substantive reason for refusal of permission relates to the potential for the proposed development to lead to serious air pollution on foot of the emissions from the boiler proposed to be installed on the site and that the applicant had not satisfactorily demonstrated that a significant negative impact on air quality would not arise. As set out in section 7.0 of this report, I note the case presented by the first party that the boiler proposed to be installed on the site would be regulated through the Medium Combustion Plant Directive. In addition, given the nature of the proposed boiler, it would have to operate in accordance with emission limit values specified in an IE licence and the location of the site relative to surrounding land uses I consider that the potential for significant impacts on air quality to arise from this element of the proposed development is limited. I am therefore in general agreement with the case made by the first party with regard to the likelihood of significant impacts on the environment arising. Notwithstanding this view, as part of the appeal submission, the first party has submitted an air dispersion model which indicates the potential for the development to impact on air quality in the vicinity.

8.4.40. Details of the air dispersion model are set out in the first party appeal and the basic model used and assumptions are noted and considered to be appropriate. In a number of respects, the assumptions used and the design are conservative, specifically the use of a stack height of 15.55 metres is noted which would be more than 3 metres above the height of the closest proposed structures on site. The results of the modelling undertaken indicates that there would be no exceedance of the specified air quality standard and I therefore agree with the conclusions contained in both the EIAR and the first party appeal that on the basis of the information available, the proposed development would not have a significant negative impact on relevant air quality parameters including for NOx and Sox and that there would not therefore be any significant impacts on human health arising.

8.4.41. The potential for the on site flare to impact on air quality is specifically addressed at section 9.4.2.2 of the EIAR. This section sets out the limited situations under which the flare would operate which includes situations where the GNI network cannot accept gas, the quality is inadequate or there is an issue with regard to pressure in the digestor tanks, and the overall annual operation of the flare is estimated to be approximately 50 hours per annum. During periods of operation of the flare there is potential for the release of emissions that would be considered to be potentially

significant in terms of air quality and these include CO, NOx, and Sox. Section 9.4.2.2 of the EIAR states that the potential impact of these emissions would be assessed in detail during the licence application process with the EPA and that due to the very low number of hours per annum that the flare is predicted to be in use that these emissions are not considered to have a significant impact on air quality. On the basis of the information presented I would agree with this assessment. It is not in the interests of the site operator that the flare would be in operation for any extended period and in the event of a significant period where the flare would be required then the digestor could be shut down. I also note and agree with the comments of the first party regarding the fact that any emissions from the flare would be the subject of emission limits set out in any IE Licence issued by the EPA and it is my opinion that the available information indicates that there is not a clear basis under which permission should be refused by the Board arising from emissions from the proposed on site flare.

Dust

8.4.42. The potential for dust emissions to be generated during the construction phase of the development is recognised at 9.2.6 of the EIAR and reference is made to the TA Luft standard of 350ug/ m2/ day as an annual average at sensitive receptors. Section 9.4.1 of the EIAR addresses the risk of dust impacts during the construction phase of the development. This assessment notes the significant separation between the site and residential / sensitive receptors. The nearest third party residential property is located c.125 metres to the north east of the site. The risks arising from dust primarily relate to earthworks required in topsoil stripping and berm construction with the construction activity limited in extent and involving a significant number of pre-fabricated elements. Having regard to these factors, I consider that the risk of on site generated construction phase dust emissions significantly impacting on off site receptors would be low. With regard to traffic to and from the site and dust emissions from trackout, as noted previously in this assessment the levels of construction traffic expected is such that a specific assessment of these impacts is not considered mandatory. In the event of a grant of permission, the developer would be required to submit a construction and environment management plan for the agreement of the Planning Authority which would include details of construction traffic and access to the site. Having regard to the above I do not agree with the

third party submissions that issues related to air quality and dust emissions have not been adequately addressed in the EIAR.

8.4.43. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on air. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Climate

8.4.44. Climate impacts arising from the proposed development are addressed at Chapter 10 of the EIAR. At construction phase, the proposed development would have potential impacts arising from transport to and from the site and indirect impacts arising from the production of equipment and the winning of resources used in the construction activity. At operational phase, the development would have direct negative impacts due to the use of fuels and the flaring of gas. There are also likely to be negative impacts arising from transport to and from the site. Against these, the operational phase can also be seen to have a net positive climate impact in that the output of the anaerobic digestion process would be the production of a renewable gas that is generated by the use of feedstock material that is a by product of agricultural activity. In addition, the biogas produced is generally at a ration of 60 percent methane and 40 percent carbon dioxide. The CO2 element of the gas produced is carbon neutral as the feedstock has taken this CO2 from the atmosphere.

8.4.45. Mitigation measures during construction are set out at 10.5.1 of the EIAR and include measures to minimise machinery activity on site, the reuse of excavated material / soil on site and the local sourcing of materials as far as practicable. The direct and indirect construction phase climate impacts arising from the proposed development are not quantified in the EIAR, however given the relatively limited scale of the site and the construction activity proposed, the direct and indirect climate change impacts arising at this phase are not considered likely to be significant.

8.4.46. Section 10.5.2 of the EIAR sets out mitigation measures proposed to be incorporated at operational phase. These include operation of the facility in accordance with an Environmental Management Plan, the use of a high efficiency boiler, effective operation of the anaerobic digestion process in the form of inputs and temperatures to maximise operational efficiency and the minimisation of the need for the flaring of gas. The direct and indirect operational phase climate change impacts arising from the proposed development are not explicitly quantified in the EIAR. The direct operational phase negative climate impacts arising from the powering of the facility and climate emissions from the process would however be significantly outweighed by the positive impacts in terms of the production of a bio fuel that would result in significantly reduced CO2 emissions to the atmosphere relative to the use of gas produced from natural sources. Section 10.42 of the EIAR states that the development is proposed to inject c.3,766,800 cubic metres of gas into the network and this gas is stated to have a c.60 percent saving in CO2 emissions compared to the use of conventional gas.

8.4.47. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on climate. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

8.5. Material Assets, Cultural Heritage, and the Landscape

Material Assets

8.5.1. ***Transport*** related impacts are presented at Chapter 14 of the submitted EIAR. The development would have potential traffic impacts during both the construction and operational phases of the project. During the construction phase, construction traffic would be accessing the site over a 12 month period. Once operational, the development would be served by feedstock that would be imported to the site by road and digestate exported also by road.

8.5.2. Access to and from the site is proposed to be via the south and the roundabout at the junction of the R443 / L-2007 and L-20072. A survey of this junction was undertaken with the results presented at Table 14-1 of the EIAR. The results of this survey indicate that the existing traffic volumes on the L-20072 onto which the site access are low and that the percentage of HGV traffic at the surveyed junction is also low at c.5 percent. There is no record of any traffic collisions recorded on the L-70022 or at the above junction over the 2005-2016 period.

8.5.3. The parking standard for industrial developments as per the Tullamore and Environs Development Plan is 1 no. space per 50 sq. metres of gross floor area. Adequate car parking to cater for the proposed 4-5 operational phase staff numbers is proposed and space is available for the provision of additional on-site parking if required.

8.5.4. At construction phase, traffic accessing the site would comprise a mixture of workers vehicles and construction related HGVs and other vehicles. Paragraph 14.4.1 states that it is anticipated that a maximum of 30 construction workers would be on site at any one time and that all workers vehicles would park within the site to avoid congestion. Construction generated HGV traffic is stated to comprise between 5 and 10 for the majority of the approximately 12 month construction period with a short period of a number of days when concrete would be poured when there would be 80-100 HGVs per day accessing the site. On the basis of the information presented, I consider that the traffic volumes accessing the site during the construction phase would not be such as to result in the creation of a traffic hazard or to give rise to significant congestion at the R443 / L2007 / L-20072 junction to the south east of the site. During the busy periods when concrete is being delivered some traffic management measures are likely to be required, however the period during which such works are proposed is limited to 4 or 5 days and the overall negative impacts arising are not considered to be significantly negative.

8.5.5. During the operational phase of the project, traffic will primarily be generated by the importation of feedstock to the site and the export of digestate. Some additional traffic would be generated by the on site staff which is anticipated to be a maximum of 5 no. persons and also occasional maintenance vehicles. The predicted average daily HGV traffic to and from the site are presented in Tables 14-4 and 14-5 of the EIAR. The average daily input trips to the site for feedstock is indicated as being 15

no. with the average number of outbound trips with digestate stated to be 13. Total one way trips to and from the site connected with the process is therefore c.28 or approximately 2 no. trips per hour that the facility would be open and staffed to receive vehicles.

8.5.6. Sight lines and sight stopping distances at the proposed access onto the L-20072 would be in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) which specifies a minimum sight line of 59 metres given the 60km/hr speed limit on the road. Forward sight stopping distances significantly in excess of the minimum requirements would be available. These sight lines are indicated on Drg. P803 Rev P1 which was submitted as part of the response to further information submitted to the Planning Authority. This drawing also shows the proposed provision of a continuous footpath and cycle path that would run along the frontage of the site. The provision of these facilities is considered appropriate given the absence of a footpath on this side of the L-20072.

8.5.7. The source of the feedstock and digestate materials are not detailed in the application documentation however it is stated that approximately 50 percent of the feedstock necessary to serve the development would be from the landholding of 402 ha. from which the site is proposed to be taken. The digestate produced is anticipated to be returned to the supply farms and this would be consistent with the requirements of the RED II Directive. The exact layout of the agricultural lands that the appeal site forms part are not presented in the application documentation and therefore it is not feasible to predict which route the feedstock and digestate would use. All traffic would however use the R443 / L-2007 / L20072 roundabout and Tables 14-7 and 14-8 of the EIAR present the results of an ARCADY analysis of the predicted traffic volumes on the operation of this junction. The results indicate that the junction would continue to operate well within capacity even with the development in place up to a design year of 2036. Details of the analysis undertaken are presented at Appendix 14-3 of Volume 3 of the EIAR. The results presented are based on future traffic growth rates as presented in Table 14-3 of the EIAR which show an increase in background traffic levels of 18.29 percent over the 2019 – 2036 period. It is not clear therefore the extent by which the analysis presented at Tables 14-7 and 14-8 reflect the potential future development of other zoned lands to the north of the appeal site, the development of which may impact

negatively on the operation of the R443 / L-2007 / L-20072 roundabout. Analysis of the average queue, RFC and delay figures presented in Table s 14-7 and 14-8 however indicates that the additional impact of the proposed development over the base year of 2019 is very limited and while the development of other zoned lands may therefore impact on the operation of this roundabout junction, on the basis of the information presented I do not consider that the proposed development is likely to have any material impact on overall junction capacity.

8.5.8. I note the reference in the application documentation to the potential for there to be overlap between vehicles delivering feedstock and collecting digestate and to the questions raised by third parties regarding the viability of such dual use of vehicles. I note and generally agree with the concerns expressed by the third party observers on this issue and note that the first party has not provided any details to indicate that such dual use of vehicles would be feasible. With regard to the implications of potential dual usage of vehicles on the analysis presented at Chapter 14 of the EIAR, my reading of section 14.4.2 of the EIAR is that the analysis presented at Tables 14-7 and 14-8 is based on 28 no. two way feedstock / digestate collection trips per day from the facility and that the analysis presented does not assume any dual use of vehicles for the purposes of feedstock delivery and digestate collection. This is not however completely clear from the information presented. An examination of the figures set out in the ARCADY analysis of the roundabout presented at Appendix 14-3 of the EIAR indicates that the predicted additional impacts of the development on the junction in the with development over the without development scenario in 2021, 2026 and 2036 are marginal in terms of the analysed parameters, including max RFC, max delay, max queue, and total junction arrivals. In my opinion therefore, even if the 28 no trips referenced in Tables 14-4 and 14-5 have been modelled as one way rather than two way trips to account for dual use of vehicles for deliveries to and collections from the site, I consider that the impact of the development on the analysed junction during the operational phase of the development would be limited.

8.5.9. With regard to the wider routing to and from the site for feedstock and end digestate, the full extent and locations of source and end locations is not available in the EIAR and therefore exact wider routes beyond the R443 / L-2007 / L20072 junction. Under the heading of mitigation, section 14.5 of the EIAR states that it is intended

that the operators would adhere to a routing policy that would avoid HGVs passing through residential areas as far as is practicable and it is also stated that the route to and from the site would follow the strategic road network. Given the limited feasibility in identifying all feedstock source and digestate end locations, and the potential variations over time in such locations, I consider it appropriate that in the event of a grant of permission a condition requiring the submission of details of the main haul routes to and from the site that would avoid the use of non-strategic routes and encroachment into residential areas for the written agreement of the planning authority.

8.5.10. Overall, on the basis of the information on file and specifically the scale of the proposed development, the anticipated traffic flows to and from the site, the nature of the vehicles and the location of the site relative to surrounding land uses I do not consider that the operational phase of the proposed development would have likely significant negative impacts in terms of road capacity or safety.

8.5.11. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on material assets. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Cultural Heritage

8.5.12. Issues relating to cultural heritage are addressed at Chapter 13 of the submitted EIAR. The assessment is based on a desktop review augmented by a field inspection. Photographs from this inspection are presented at Appendix 13-1 of the EIAR. The desktop assessment indicates that there was evidence of a house located at the south east corner of the site in the early 1800s however no remains of this structure are evident today on site.

8.5.13. There are no structures included in the record of monuments and places located within the site or in close proximity to the site boundaries. The closest such structures are set out at Table 13-1 of the EIAR and comprise a quarry and standing

stone located to the east on lands that are now within the adjoining developed lands. To the south west, Ref. OF016-024001 (a ringfort) is located to the west of the railway line from the appeal site.

8.5.14. There are no protected structures or structures included on the national Inventory of Architectural Heritage located on or in close proximity to the appeal site.

8.5.15. The proposed development would have potential impacts on archaeology and cultural heritage during the construction phase given the requirement for site excavation and ground works. There are no likely impacts that could arise during the operational phase of the development. There are no indirect or cumulative impacts on cultural heritage considered likely to arise. Given the separation of the site from any known sites, the potential impact on archaeology or architectural heritage is considered very limited. In the event of a grant of permission it is recommended that the construction would be overseen by an archaeologist.

8.5.16. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on cultural heritage. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

Landscape and visual impact

8.5.17. Issues relating to landscape and visual impacts arising from the development are addressed at Chapter 12 of the submitted EIAR. The environs of the site are generally flat with slight undulations and the most notable features are as noted in section 12.3.3 of the EIAR, namely an esker located c.1km to the north the railway line to the west and the Grand Canal c.1.1km to the south. The site is located such that it is at the margins of the current developed area of Tullamore, though lands to the north and west are currently zoned for development. To the east and south are located existing large scale commercial and industrial developments including the Chadwicks store and the area to the east and north east is characterised by large scale commercial and industrial development in the Axis Business Park. The site is

therefore located in a transitional location between urban development and more rural areas to the west.

8.5.18. In terms of policy, the site is identified as a Low Sensitivity Area as per the classification contained in Chapter 7 of the current Offaly County Development Plan. The description of such areas as per the plan notes that such areas are able 'to absorb quite effectively, appropriately designed and located development in all categories'. As noted in 12.3.4 of the EIAR, in the wider area, there are a number of locations that are identified as being of moderate sensitivity, notably around the line of the Grand Canal and the esker system to the north. Both of these designations are however located c.1km away and therefore are at a relatively significant remove from the appeal site. There are no views identified in the development plan that would be impacted by the proposed development.

8.5.19. The proposed development would have potential visual impacts during the construction phase with the undertaking of significant soil stripping and berm construction works. At the operational phase, the development would have the appearance of an industrial facility with large scale storage and processing vessels, boiler stack and flare for the flaring of gas.

8.5.20. The analysis presented in the EIAR is based on a desk survey and the assessment of visual impact is guided by a number of representative viewshed reference points (VRPs) which are listed in Table 12-1 of the EIAR. The 7 no. locations identified are noted and are in my opinion such that they cover the main locations where significant visual impacts could potentially arise. Specifically, the VRPs identified cover the residential areas to the south and south west on the Rahan Road (VP3 and VP4), the Stack road to the south east (VP5) are the closest part of the Axis Business Park (VP2). Design mitigation in the form of berm construction that would be planted along the northern and eastern boundaries to the site and general site landscaping would mitigate the visual impacts arising to a significant degree, particularly the local scale visual impacts. The visual impact at operational phase assessed at these locations ranges from imperceptible to moderate – slight. Given the location of the site relative to the most sensitive visual receptors and the context of the site adjacent to commercially / industrially zoned lands and lands zoned for future development I would agree with the assessment contained in the EIAR that the worst case visual impact would be moderate adverse. I would also agree with

the assessment that pre mitigation, the most significant potential impacts are likely to be on visual receptors in close proximity to the site.

8.5.21. With regard to landscape impacts, the nature of the surrounding landscape as detailed above, and the absence of any specific designations means that I do not consider that significant landscape impacts are likely to arise during either the construction or operational phases.

8.5.22. In conclusion, on the basis of the information submitted with the application including that in the EIAR, the submissions on file and observations at the time of inspection of the site, I do not consider that the proposed development would have any significant adverse direct or indirect effects on landscape. Given the limited impacts predicted under this factor of the environment I do not consider that significant cumulative impacts are likely to arise when the proposed development is considered together with other permitted plans and projects in the vicinity.

8.6. Reasoned Conclusion

8.6.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the developer including the response to further information submitted to the planning authority and the first party appeal, and to the submissions received from the Planning Authority, prescribed bodies and observers in the course of the application, 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:

- The development has the potential to generate odours that would impact negatively on amenity and human health and these will be mitigated by on site control of storage areas, procedures to minimise odour release including from vehicles and the installation of odour abatement equipment to the feedstock reception hall building.
- The development has the potential to negatively impact on air quality due to the operation of the on site anaerobic digestor and these potential impacts will be mitigated by good maintenance and operation of the facility including minimisation of use of the on site flare.

- The development has the potential to impact negatively on ground and surface waters during construction phase of the development and this will be mitigated by good construction practice in the management of the storage and handling of equipment and materials,
- The development also has the potential to have negative impacts on water during the operational phase due to the potential for spillages on site or accidents or other incidents and these impacts will be mitigated by on site processes, bunding of the main operational areas and the design of the surface water drainage system,
- Potential indirect impacts on water arising from the sourcing of feedstock and the disposal of digestate will be avoided by the fact that no additional input material will be produced solely to feed the proposed anaerobic digestor and that the end digestate will be less potentially harmful to the water environment that the spreading of slurry. The fact that the activity will be licenced and that nutrient management plans will be prepared for the disposal of digestate will also mitigate indirect impacts on water.
- The proposed development will have a significant net positive impact on the environment under the heading of climate due to the replacement of non renewable gas with the renewable bio gas that will be produced on site.

Having regard to the above, I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect, or cumulative impacts on the environment.

9.0 Appropriate Assessment - Screening

9.1. Compliance with Article 6(3) of the Habitats Directive

9.1.1. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under Part XAB, Section 177U of the Planning and development Act, 2000 (as amended) are considered fully in this section.

9.2. Background to Application

9.2.1. The first party has submitted a screening report for Appropriate Assessment as part of the Planning application. This report is titled 'Appropriate Assessment Stage 1 - Screening Report', prepared by Malone O'Regan Environmental and dated July, 2020.

9.2.2. The Stage 1 Screening report was prepared in line with current best practice guidelines and provides a description of the proposed development (Section 3.0) and identifies European sites located within a possible zone of influence of the development (Section 4.0). The application is also accompanied by an EIAR (including Appendices) which includes sections on biodiversity (Chapter 6), Land and Soils (Chapter 7), Water (Chapter 8) and Air Quality (Chapter 8).

9.2.3. The applicants AA Screening Report concluded (Section 6) that 'In conclusion, activities associated with the proposed development wither alone or in combination with other projects or land uses, will not have any direct or indirect adverse effects on the conservation objectives of any Natura 2000 European Designated sites'.

9.2.4. Having reviewed the documents and submissions I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development alone or in combination with other plans or projects on European sites.

9.2.5. The project is not connected with or necessary for the management of a European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s). The proposed development is examined in relation to any possible interaction with European sites designated special

conservation areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European sites.

9.3. Project Scope, Main Characteristics and Potential Emissions / Effects on European Sites

9.3.1. The site is located in a transitional area that is within the development boundary of Tullamore as identified in the Tullamore Town Plan but is currently at the margins of the developed area of the town. The site is currently undeveloped and in agricultural use and the area to the west and north of the site, while zoned for development, are currently also in agricultural use. Existing commercial and industrial development is located to the east and north east in the form of the Axis Business Park and also to the south where there is a Chadwicks retail outlet.

9.3.2. The main rail line Dublin to Galway rail line runs to the west of the site at a separation of c.75 metres from the site boundary at the closest point. Other notable features in the vicinity include the Grand Canal that runs c.1.1km to the south of the site and the Tullamore River further to the south that is located c.1.3km from the appeal site at the closest point.

9.3.3. The stated area of the site is 2.14 ha. and the closest residential property to the site is located to the north and separated from the site by c.100 metres. There are further clusters of residential properties located to the south of the site on the Srah Road and also to the west on the Rahan Road. The closest regional road is the R443 which runs to the east and south of the site.

9.3.4. A detailed description of the proposed development is set out at Chapter 3 of the EIAR and at Section 3.0 of the Appropriate Assessment Screening Report. The following is a summary of the main elements of the proposed development:

- The development on site will operate as a renewable biogas generating facility that will take agricultural feedstocks and generate gas in an anaerobic process. Gas produced in this process will be upgraded on site to produce gas that can be injected into the Gas Network Ireland (GNI) in close proximity to the site. The feedstock material to be used in the anaerobic digestion process is proposed to comprise ryegrass silage, manure, fodder beat, maize

silage, and chicken litter. The total amount of such material proposed to be processed per annum is stated to be 50,000 tonnes and the breakdown of the material is presented at Table 3-1 of the EIAR. Most feedstock being delivered to the site will be delivered to the Feedstock Reception hall building that has dimensions of 57.8 by 30.8 by 13.12 metres high. This structure would be a significant potential source of odours and would be served by an odour control system. Silage received on site would be stored in covered silage clamps or storage areas that are proposed to be located at the western end of the site. Material is mixed in a solid input device prior to being introduced into the digestor tanks.

- The digestor tanks comprise 2 no. primary tanks with a capacity of 6,858 cubic metres and an operational capacity of 6,079 cubic metres and a secondary digestor tank. The tanks are proposed to be c.16.35 metres in height and have a diameter of 31.5 metres. The primary tanks are proposed to be fitted with gas domes that have an operational volume of c.1660 cubic metres.
- Following the secondary digestor the digestate is proposed to pass through a pasteurisation unit. The digestate is then proposed to be dewatered with the solid material stored in a solids storage area prior to transport off site. The liquid material is proposed to be stored in digestate storage tanks. These two tanks are each stated to have a capacity of 3,137 cubic metres and to have capacity to store up to four months of liquid digestate produced.
- Heat to serve the process on site, in particular the pasteurisation unit, is proposed to be provided by an on site boiler.
- The final steps in the process comprise the passing of the gas from the domes in the digestor tanks through a gas upgrade unit where any impurities would be removed by an activated carbon filter. The finished gas would also be pressurised prior to injection into the grid via the gas injection unit. In the event that the quality of the finished gas is deemed not to be up to the required specification then there is an enclosed flare that can burn off gas at a rate of approximately 500 cubic metres per hour.

- The water supply to serve the development is proposed to be via the existing public supply with significant use made of rainwater collected on site in the process. The volume of water to be taken directly from the mains is stated to be 0.6 cubic metres per day with the balance provided by rainwater harvesting on site and from the collection of rainwater from hardstanding areas. Foul wastewater generated by the on site facilities for staff are proposed to be discharged to the public drainage system and it is stated that no process effluent will be disposed of to the foul drainage system.
- The digestor tanks and associated equipment are included within a hardstanding area and bunding of process areas is proposed. The surface water drainage system is proposed to be attenuated on site prior to discharge off site and the surface water drainage system is proposed to have shut off valves to prevent discharge from the site in the event of a spillage, fire, or other incident.

9.3.5. Taking account of the characteristics of the proposed development in terms of its location and nature of the proposed works and on site activity, the following issues are considered for examination in terms of implications for likely significant effects on European sites:

- Uncontrolled surface water or silt during the stripping of the site and construction of the proposed perimeter berms.
- The release of contaminants during the on site construction activity,
- Potential emissions during the operational phase of the development including potential discharges to surface and ground waters in the event of an on site failure of the process or other incident, release of odours and other forms of air pollution and emissions to the environment during the transportation of materials to and from the site
- Indirect impacts from the sourcing of feedstock and the disposal of digestate.

9.4. Submissions and Observations

9.4.1. The following issues relevant to the potential impact of the development on European sites are raised in the third party submissions received by the Board:

- Potential impacts on Charleville Woods SAC and Clara Bog SAC due to odours and air pollution.
- No detail provided how the disposal of digestate will be achieved without resulting in pollution of ground and surface waters.

9.5. European Sites

9.5.1. The site is not located within or close to any European site. The following are the closest European sites to the appeal site:

- Charleville Wood SAC (site code 000571) which is located approximately 1.1 km to the south of the appeal site at the closest point.
- Clara Bog SAC (site code 000572) which is located approximately 5.7km to the north west of the appeal site at the closest point.

Other European sites that are located within a 15km radius of the appeal site are as follows:

- Split Hills and Long Hill Esker SAC (site code 001831) which is located c.11.4km to the south east of the appeal site.
- Raheenmore Bog SAC (site code 000582) which is located c.12.5km to the north east of the appeal site,
- River Barrow and River Nore SAC (site code 002162) which is located c.12.5km to the south east of the appeal site,
- Clonaslee Eskers and Derry Bog SAC (site code 000859) which is located c.14.5km to the south west of the appeal site,
- Slieve Bloom Mountains SPA (site code 004160) which is located c.15km to the south of the appeal site at the closest point.

9.5.2. In terms of an initial screening of the above listed sites the following is noted:

- There are no watercourses located on or in close proximity to the appeal site and there are therefore no clear surface water pathways between the appeal site and the above listed European sites.
- The nature of the proposed development and the separation distance between the appeal site and the second category of sites listed above is such that there are no viable pathways between the appeal site and these sites. The proposed developments is not therefore likely to have significant effects on these European sites and these sites have been screened out from further consideration of potential direct effects.
- With regard to indirect effects arising from the sourcing of feedstock material for the development and the disposal of digestate it is noted that no input / feedstock material is proposed to be produced with the sole intention of being an input into the anaerobic digestion process. Relative to the 'do nothing' scenario, I do not therefore see that the proposed feedstock materials can be seen to lead to potential likely significant effects on the conservation objectives of European sites.
- With regard to indirect impacts on European sites arising from the disposal or use of digestate, the digestate produced from the anaerobic digestion process will be suitable to be used as a bio fertiliser on agricultural lands and will replace more potentially contaminating raw materials such as slurry and artificial fertilisers which can have other potentially significant environmental impacts. While the locations for the disposal of digestate are not clearly identified and this process would have a potentially negative indirect impact on water quality and therefore potentially on the conservation objectives of European sites, the practicality of expecting all lands where digestate would be disposed of to be identified is questionable as is the reasonableness of the any such identified locations remaining unchanged over time. The proposed development will be the subject of an Industrial Emissions licence from the EPA and it is anticipated that a nutrient management plan will need to be prepared in accordance with the licence. The requirement for digestate to be disposed of in accordance with a nutrient management plan would in my

opinion successfully mitigate any potential residual indirect impact arising from the disposal of digestate that has gone through the anaerobic digestion process and enable a conclusion to be reached that the indirect effects arising from this part of the process would not be likely to have significant effects on any European sites.

9.5.3. Having regard to the above it is considered that the following sites can be screened out of further consideration:

- Split Hills and Long Hill Esker SAC (site code 001831)
- Raheenmore Bog SAC (site code 000582)
- River Barrow and River Nore SAC (site code 002162)
- Clonaslee Eskers and Derry Bog SAC (site code 000[illegible])
- Slieve Bloom Mountains SPA (site code 004160)

9.6. **Charleville Wood SAC**

9.6.1. The qualifying interests for this site are:

- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)
- Vertigo moulinsiana (Desmoulin's Whorl Snail)

The generic conservation objective for this site is *'To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected'.*

9.6.2. The potential impacts on this site arise due to the potential changes in water quality arising from construction operations at the site and also the potential for discharges to ground or surface waters during the operational phase in the event of a discharge from the process or incident at the site. The operational phase of the development also has some potential to have negative effects on this European site by virtue of negative impacts on air quality.

9.6.3. With regard to surface water impacts during construction and operational phases, there are no clear surface water pathways between the appeal site and the Charleville Wood SAC site. The appeal site is located on the opposite side of the Grand Canal and the Dublin – Galway rail line from Charleville Woods SAC and the potential for significant negative effects on groundwater within the SAC is therefore very limited. The separation between the appeal site and the SAC and the barriers formed by the canal, the Tullamore River and the rail line are such that there would not be impacts on the hydrology within the SAC that could have significant effects on the conservation objectives of the site.

9.6.4. With regard to the potential for significant effects by virtue of odour and air pollution, the analysis presented in the EIAR and which is set out at 8.4 of this report. Construction phase impacts, both direct from the construction activity on site and indirectly from off site transport of materials and vehicle movements, are not considered likely to be such as to lead to a significant negative impact on the environment. No excessive emissions of dust, noise, or other emissions to air are considered likely to arise such as would have significant impacts on the environment in the vicinity of the site and no impacts on the Charleville Wood SAC site which is at a remove of 1.1 km from the site and predominately upwind are considered likely to arise. At the operational phase of the project, the development has the potential to impact on air quality due to emissions from the anaerobic digestion process including proposed on site flare, from the on site operation of the proposed 4.5MW boiler on site and also from the indirect emissions due to transport to and from the site.

9.6.5. As set out in section 8.4, as part of the first party appeal an air dispersion modelling assessment of the likely impacts of the on site generator was undertaken and I consider that this adequately demonstrates that no significant impacts on air quality would arise and that the basis of the reason for refusal issued by the Planning Authority has been adequately addressed. The assessment of odour undertaken and detailed at section 8.4 of this assessment indicates that odour impacts would be within normally acceptable limits at sensitive receptors in the immediate environs of the site. Odours due to transportation would not be significant given the nature of the enclosed nature of the vehicles used in the transportation process and would not be significant in the context of potential effects on the conservation objectives of the site. No significant odour impacts would arise within the Charleville Wood SAC and

no negative effects on the conservation objectives of the site due to odours would arise.

9.6.6. Potential emissions of CO, NOx and SOx would be limited to periods when the on site flare is in operation and is not considered likely to be significant or such that there would be potential significant effects on the conservation objectives of the SAC. Similarly, the release of dust and particulate matter is not considered to be a significant issue during either the construction or operational phases and would not have the potential to have significant effects on the conservation objectives of the Charleville Wood SAC site.

9.6.7. In conclusion, the proposed development is not likely to have significant effects on the Charleville Wood SAC site in the light of its conservation objectives.

9.7. Clara Bog SAC

9.7.1. The qualifying interests of this site are as follows:

- Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)
- Active raised bogs
- Degraded raised bogs still capable of natural regeneration
- Depressions on peat substrates of the Rhynchosporion

The site specific conservation objectives for the site seek to restore the favourable conservation condition of the above habitats as defined by a list of attributes and targets relating to inter alia habitat area and distribution, vegetation composition and structure and physical structure.

9.7.2. The potential impacts on this site arise due to the potential changes in water quality arising from construction operations at the site and also the potential for discharges to ground or surface waters during the operational phase in the event of a discharge from the process or incident at the site. The operational phase of the development also has some potential to have negative effects on this European site by virtue of negative impacts on air quality.

9.7.3. With regard to surface water impacts during construction and operational phases, there are no clear surface water pathways between the appeal site and the Clara Bog SAC site. The appeal site is located on the opposite side of the Silver River and the Dublin – Galway rail line from Clara Bog SAC and the potential for significant negative effects on groundwater within the SAC is very limited given the nature of the proposed activity on site and the separation distance. The separation between the appeal site and the SAC and the barriers formed by the Silver River and the rail line are such that there would not be impacts on the hydrology within the SAC that could have significant effects on the conservation objectives of the site.

9.7.4. With regard to the potential for significant effects by virtue of odours and air pollution, the analysis presented in the EIAR and which is set out at 8.4 of this report. Construction phase impacts, both direct from the construction activity on site and indirectly from off site transport of materials and vehicle movements, are not considered likely to be such as to lead to a significant negative impact on the environment. At the operational phase of the project, the development has the potential to impact on air quality due to emissions from the anaerobic digestion process including proposed on site flare, from the on site operation of the proposed 4.5MW boiler on site and also from the indirect emissions due to transport to and from the site.

9.7.5. As set out in section 8.4, as part of the first party appeal an air dispersion modelling assessment of the likely impacts of the on site generator was undertaken and I consider that this adequately demonstrates that no significant impacts on air quality from this source would impact on the Clara Bog and that the basis of the reason for refusal issued by the Planning Authority has been adequately addressed. The assessment of odour undertaken and detailed at section 8.4 of this assessment indicates that odour impacts would be within normally acceptable limits at sensitive receptors in the immediate environs of the site. Odours due to transportation would not be significant given the nature of the enclosed nature of the vehicles used in the transportation process and would not be significant in the context of potential effects on the conservation objectives of the site. No significant odour impacts would therefore arise within the Clara Bog SAC and no negative effects on the conservation objectives of the site due to odours would arise.

9.7.6. Potential emissions of CO, NOx and SOx would be limited to periods when the on site flare is in operation and is not considered likely to be significant or such that there would be potential significant effects on the conservation objectives of the SAC. Similarly, the release of dust and particulate matter is not considered to be a significant issue during either the construction or operational phases and would not have the potential to have significant effects on the conservation objectives of the Clara Bog SAC site.

9.7.7. In conclusion, the proposed development is not likely to have significant effects on the Clara Bog SAC site in the light of its conservation objectives.

9.8. Screening Determination

9.8.1. The proposed development was considered in light of the requirements of s.177U of the Planning and Development Act, 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually or in combination with other plans or projects would not be likely to give rise to significant effects on European site No. 000571 (Charleville Wood SAC), European site No. 000572 (Clara Bog), or any other European site, in view of the site's conservation objectives, and Appropriate Assessment is not therefore required. The determination is based on the following:

- The absence of any direct effects or any impacts due to severance,
- The demonstrated lack of any hydrological connections between the appeal site and the SAC,
- The separation distance and resulting absence of indirect effects arising from any potential airborne pathway.

10.0 Recommendation

10.1. Having regard to the above, it is recommended that permission be grated based on the following reasons and considerations and subject to the attached conditions:

11.0 Reasons and Considerations

Having regard to:

(i) European Union and national sustainable energy and waste policies, the provisions of the Eastern – Midlands Region Waste Management Plan 2015-2021, the provisions of the Offaly County Development Plan 2014-2020 including, in particular, policies in relation to renewable energy and support for biogas production,

(ii) the requirement for the Anaerobic Digester Plant to be subject to and regulated under an industrial emissions licence to be issued by the Environmental Protection Agency,

(iii) the pattern of existing and permitted development in the vicinity of the site and the potential future development of surrounding lands,

(iv) the location of the proposed development on lands on the outskirts of Tullamore and in close proximity to the source of agricultural feedstock material and locations which are suitable for the spreading of digestate,

(v) the proximity of the site to the gas networks Ireland gas network for the export of gas,

(vi) the design, nature and extent of the proposed Anaerobic Digester structures which are appropriate to their location in an area primarily characterised by industrial / commercial uses.

(vii) The nature of the landscape and the absence of any specific conservation or amenity designation for the site,

(viii) Mitigation measures proposed for the control of emissions to the environment including relating to emissions to air and the minimisation of odours and noise,

(ix) The submissions on file including those from prescribed bodies and the Planning Authority,

(x) The documentation submitted with the application, including the Environmental Impact Assessment Report and Appropriate Assessment Screening Report.

It is considered that, subject to compliance with the conditions set out below, the proposed development:-

- would comprise an acceptable form of energy recovery from primarily agricultural waste,
- would be in accordance with European Union, National and Regional waste and sustainable energy policies and the provisions of the County Development Plan,
- would not interfere with a protected view and prospect of national importance or the heritage of the area,
- would not seriously injure the amenities of the area or property in the vicinity,
- would be acceptable in terms of traffic safety and convenience,
- would not be prejudicial to public health,
- would not give rise to a risk of serious pollution, and
- would not give rise to a major accident risk.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 **Conditions**

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further plans and particulars submitted on the 23rd day of July 2020 and by the further plans and particulars received by the Planning Authority on the 24th day of November, 2020, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.

2. All environmental mitigation measures set out in the Environmental Impact Assessment Report and associated documentation submitted by the developer with the application, by way of further information and the appeal shall be implemented in full except as may otherwise be required in order to comply with the conditions of this order.

   Reason: In the interest of clarity and to protect the environment during the construction and operational phases of the development.

3. The following limits and requirements shall be complied with in the anaerobic digestion process:

   (a) A maximum of 50,000 tonnes per annum of raw materials shall be treated in the anaerobic digesters

   (b) The composition of feedstock used as input into the anaerobic digestors shall be as detailed in Table 3-1 of Volume 2 of the EIAR.

   Reason: In the interests of clarity

4. An annual report on the operation of the faciality hereby permitted shall be submitted to the Planning Authority. The content of this report shall be as agreed in writing with the Planning Authority and shall include inter alia the following:

   (a) Details of the source of all feedstock and final disposal areas of digestate,

   (b) The volumes of raw materials treated in the anaerobic digester in the previous 12 months,

   (c) The volume of digestate produced and stored in previous 12 months.

   (d) The volume and weight of gas produced on site in previous 12 months.

   Reason: In the interest of orderly development and to ensure compliance with the parameters set out in the application. .

5. Water supply and drainage arrangements, including the attenuation and disposal of surface water shall comply with the requirements of the planning authority for such works and services.

   Reason: In the interest of public health and to ensure a proper standard of development.

6. Prior to the commencement of development, the developer shall submit for the written agreement of the Planning Authority a breakdown of water supply sources to the development with associated calculations that confirm the source of process water to serve the development as set out at paragraphs 3.2.1 and 8.4.2.1 of Volume 2 of the EIAR.

   Reason: In the interest of public health and to ensure a proper standard of development.

7. Prior to commencement of development, the developer shall enter into water and/or waste water connection agreements with Irish Water.

   Reason: In the interest of public health.

8. Prior to the commencement of development, and on an annual basis post operation, the developer shall submit a mobility plan that would set out the haul routes to and from the site for the agreement of the Planning Authority. Such a plan shall indicate the main feedstock and digestate spreading locations and demonstrate as far as is practicable how routes to and from the site to these locations are restricted to the primary routes and avoid residential areas.

   Reason: In the interests of residential amenity.

9. Prior to the commencement of development, the developer shall submit details for the written agreement of the Planning Authority that clearly demonstrate that the maximum quantity of biogas present on the site at one time could never exceed 7.6 tonnes which is the maximum amount that can be stored on site in order for the permitted facility to remain below the lower tier threshold under the Seveso Directive once account is taken of the 12 tonnes of Liquified petroleum gas proposed to be stored on site. Measures to demonstrate compliance with this limit shall include operational controls to limit the biogas quantities such but not limited to the monitoring of liquid levels in tanks, monitoring biogas concentrations in the vapour spaces of the tanks and the use of flaring to manage inventory.

   Reason: In the interests of clarity and to ensure that the facility will not comprise an establishment for the purposes of the Seveso III Regulations.

10. Lighting shall be provided in accordance with a scheme, details of which shall be submitted to, and agreed in writing with the planning authority prior to commencement of development. The scheme shall minimise obtrusive light outside the boundaries of the development at all times.

    Reason: In the interest of amenity and public safety.

11. The developer shall facilitate the planning authority in preserving, recording, or otherwise protecting archaeological materials or features that may exist within the site. In this regard, the developer shall

(a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,

(b) employ a suitably qualified archaeologist who shall monitor all site investigations and other excavation works, and

(c) provide satisfactory arrangements for the recording and removal of any archaeological material which may be considered appropriate to remove.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation of any remains which may exist within the site.

12 The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including and not limited to:

(a) hours of construction,

(b) location of the site and materials compound(s) including area(s) identified for the storage of construction refuse,

(c) location of areas for construction site offices and staff facilities,

(d) details of site security fencing and hoardings,

(e) details of car parking facilities for site workers during the course of construction,

(f) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site if required,

(g) measures to obviate queuing of construction traffic on the adjoining road network,

(h) measures to prevent the spillage or deposit of clay, rubble, or other debris on the public road network,

(i) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works,

(j) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,

(k) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater,

(l) details of construction lighting, and

(m) details of key construction management personnel to be employed in the development.

The plan shall include measures for monitoring dust, noise, groundwater, and surface water and shall include a proposal for periodic reporting to the planning authority.

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan and monitoring results as appropriate shall be kept for inspection by the planning authority.

A Construction Manager shall be appointed to liaise directly with the Council for the duration of the construction of the scheme.

Reason: In the interest of amenities, environmental protection, public health, and safety.

13. Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall be prepared in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects", published by the Department of the Environment, Heritage and Local Government in July 2006.

Reason: In the interest of sustainable waste management.

14. All solid wastes arising on the site shall be recycled as far as possible. Materials exported from the site for recovery, recycling or disposal shall be managed at an approved facility and in such a manner as is agreed with the Planning Authority. In any case no such wastes shall be stored on the site except within the confines of the buildings on site. Adequate on-site arrangements for the storage of recyclable materials prior to collection shall be made to the satisfaction of the Planning Authority.

Reason: To safeguard the amenities of the area.

15. The site shall be landscaped and planted in accordance with a scheme to comprise predominantly native and naturalised hedgerow, shrub and tree species reflecting those species naturally occurring in the locality. This plan shall be prepared with input from an ecologist. Full details including drawings and a timescale for implementation shall be submitted in a landscape plan to be agreed in writing with the Planning Authority prior to commencement of development. All planting shall be adequately protected from damage until established. Any plants which die, are removed, or become seriously damaged or diseased, within a period of five years from the completion of the development, shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interests of visual amenity and protecting the biodiversity value of the site.

16. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000 in respect of the provision of a footpath and cycle path across the frontage of the site. The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board for determination. The contribution shall be paid prior to the commencement of the development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.

17. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission

Stephen Kay
Planning Inspector

6th September, 2021