Inspector's Report

ABP-322641-25

Development	Construction of an anaerobic digestion plant and associated site excavation, infrastructural, site development works and servicing. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) accompany the application.
Location	Former Lisheen Mine Site, Killoran, Moyne, Thurles, Co. Tipperary.
Planning Authority	Tipperary County Council
Planning Authority Reg. Ref.	2460936
Applicant(s)	Nua Bioenergy Limited
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	Third Party
Appellant(s)	TJ Maher David Hogan & Mary Ann Cantwell-Hogan Philip and Mary Bowe

Observer(s)	None.
Date of Site Inspection	18th September 2025
Inspector	Ian Boyle

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List of Appendices

1.0 Site Location and Description

1.1. The appeal site is in a rural area comprising the townlands of Derryfadda, Cooleeny and Killoran in County Tipperary. It is roughly 15km northeast of Thurles and 6km southwest of Urlingford.

1.2. The site is situated in the northeastern part of the county. The R502 runs broadly east to west to the north of the site, linking Templemore and Johnstown. The L3201 runs towards the south of the site, linking the R502 to the L4115. It has a speed limit of 80km/h. The R502, in turn, provides access to the M8 Motorway at Junction 4, which is approximately 7km to the southeast of the subject lands.

1.3. The site lies within the former Lisheen Mining Complex and can be described as 'brownfield' for this reason. The mine previously operated as a lead, zinc and silver mine between 1999 to 2015. The facility expanded to be one of the largest zinc mines globally during this period employing c. 400 staff. Since its closure, however, the site has undergone redevelopment as the National Bioeconomy Campus, where there is a focus on developing sustainable and circular economy initiatives.

1.4. In recent years, the former mine and its associated lands have been the subject of a restoration plan, approved and supervised by the EPA. The objective of the plan is to rehabilitate the site to grassland in tandem with developing the bioeconomy campus. The campus has a focus on recycling, waste management and the production of sustainable materials. The decommissioning process has removed surface and underground infrastructure associated with the former mining facility. A tailings pond and various internal access roads are still in situ.

1.5. The wider existing Lisheen complex comprises several existing industrial and renewable energy activities, including the Lisheen and Bruckana wind farms. The Lisheen wind farm comprises 18 turbines on the former mine site and further turbines on other surrounding lands. It is connected to an existing 110 kV ESB substation which is a short distance to the northeast of the appeal site. The Bruckana wind farm comprises 14 turbines (42MW) and is operated by Bord na Móna. The wind farms generate renewable electricity for the domestic energy market in Ireland.

1.6. The site is largely vacant. There is a presence of some hardstand, artificial surfaces, and bare ground throughout the site, together with recolonised scrub, undergrowth and low-lying vegetation in various locations. A mature hedgerow runs along the western boundary. The land is generally flat reflecting its former industrial use.

1.7. The Cooleeny Stream intersects the southernmost point of the site where it extends as a narrow strip of land to facilitate the provision of a surface water discharge point. A small segment of the Cooleeny Stream therefore lies within the red line boundary of the site. The stream flow into the Lower River Suir SAC which is roughly 18km downstream. Mature hedgerows, which are of local ecological importance, are primarily outside of the site.

1.8. The surrounding area is mainly comprised of farming land, areas previously used for peat harvesting, forestry and wind energy installations. Housing in the area is mainly low-density and predominantly rural, consisting mainly of detached houses on spacious plots, farmhouses, and individual dwellings along country roads.

1.9. The subject site has a stated area of approximately 5.5ha.

2.0 Proposed Development

Anaerobic Digestion Plant

2.1. The planning application was lodged on 2nd November 2024.

2.2. The proposed development is for the construction of an anaerobic digestion plant. The main components can be summarised as follows:

- 4 No. primary digester tanks (each c.7.6m in height).
- 3 No. secondary digester tanks (each c.14.5m in height).
- 4 No. feed hoppers.
- 4 No. technical rooms (ranging in size from c. 35sqm to c. 95sqm GFA).
- 2 No. biogas conditioning units, and process, storage and buffer tanks.
- 1 No. suspension buffer tank (c. 8m in height).
- 1 No. process area runoff storage tank (c. 4.5m in height).
- 1 No. buffer digestate process tank (c. 4.5m in height).

- 1 No. treated digestate liquids recycle storage tank (c. 4.5m in height).
- 1 No. roofed liquids feed-mix tank (c. 3 m in height)

2.3. The components will be housed within a containment bund which is 3m high.

Ancillary Components

2.4. The proposed development will also consist of the following ancillary works and components:

- feedstock storage (comprising 3 No. storage clamps (c. 1,050sqm in area each) and 2 No. storage sheds (c. 500sqm GFA each)).
- a biomethane upgrading plant (including natural gas compression unit).
- a biomethane loading facility (comprising 4 No. loading bays with gates and safety features measuring c. 490sqm in area).
- a biomass boiler with associated pellet storage silo (c. 12.5 m in height).
- Combined Heat and Power (CHP) plant and associated heat exchange unit.
- a single storey bio-based fertiliser processing and storage unit (c. 3,890sqm GFA), including digestate dewatering plant, fertiliser pasteurisation plant and bio-based fertiliser loading facilities.
- a single storey office building (c. 105sqm GFA), including offices, meeting room, control room, laboratory, welfare facilities, storeroom and a first-aid facility.
- 9 No. car parking spaces, including 5 No. standard parking spaces, 2 No. electric vehicle (EV) spaces and 1 No. accessible car parking space), 10 No. bicycle parking spaces and electric vehicle (EV) charging infrastructure.
- vehicular, cyclist and pedestrian access / egress and associated circulation routes.
- 2 No. weighbridges and vehicle steam wash area.
- fuel storage tank and associated bund.
- emergency flare (c. 7.6 m in height).
- process area runoff lagoon and an attenuation pond.

- ESB sub-station.
- bin storage.
- boundary treatments, including gates, piers and fencing, and site lighting.
- hard and soft landscaping and the provision of sustainable urban drainage systems (SUDS).
- Other associated site excavation, infrastructural and site development works above and below ground, including changes in level and associated retaining features, and associated site servicing, including water and electricity supply.

Process Description

2.5. The proposed development is designed to accept and treat a total of 98,000 tonnes of agricultural manure, sludges and crop-based feedstocks per annum (pa). The process involves breaking down this organic matter to produce biogas and digestate. The biogas will be used to generate renewable energy, while the digestate will be produce fertiliser for offsite use.

2.6. The Applicant confirms that feedstocks will be primarily sourced locally, within the county, and transported to the facility from within a one-hour travel radius from the site. The process will generate bio-based fertiliser to be applied to farmland and other agricultural holdings in the nearby area.

2.7. The biomethane produced by the facility will be supplied to several different customers, including Gas Networks Ireland and Flogas, and other users, such as large industry, multinational corporations, pharmaceutical companies, and transport and logistics businesses.

2.8. The application states that it is anticipated the biomethane will be injected into Central Grid Injection (CGI) points which are located at Mitchelstown and at a private grid injection facility at Cush, County Kildare. The gas will be transferred by gas trucks to the CGI points requiring a total of four trips per month.

2.9. The anaerobic digestion (AD) process can be summarised as follows:

- Feeding – Solid feedstocks are loaded into hoppers using a loading shovel, while liquid feedstocks are pumped directly into the primary digester.

- Primary Digestion – Feedstocks undergo microbial breakdown in primary digestion tanks, where active mixing facilitates the production of biogas.
- Secondary Digestion – Partially digested material is transferred to the secondary tanks for further stabilisation, biogas capture, and preparation of digestate for use as bio-fertiliser.

2.10. An Industrial Emissions (IE) licence is required for the operation of this development under the provisions of the Environmental Protection Agency Act 1992, as amended.

2.11. The proposed development is also classified as a 'Lower Tier' COMAH establishment and therefore subject to the provisions of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015.

Further Information

2.12. The Planning Authority requested further information on 3rd January 2025, including details in relation to:

General

- Item 1: Issues relating to potential fire and risk of a major accident occurring.
- Item 2: COMAH considerations.
- Item 3: Flood Risk and management / attenuation of surface water.
- Item 4: Construction Management Plan (CMP) anomalies should be addressed (references to asbestos and location of the site compound, for example).
- Item 5: Applicant to confirm duration of planning permission sought.

EIAR

- Item 6: Further details required in relation to the proposed decommissioning phase, including the intended operational lifespan of the facility.
- Item 7: Various anomalies in the EIAR to be addressed.
- Item 8: Requirement to prepare an Archaeological Impact Assessment (AIA), including completion of an archaeological geophysical survey and archaeological test excavation.

NIS

- Item 9: Further details required in relation to the proposed decommissioning phase, including the intended operational lifespan of the facility
- Item 10: Confirm whether the application site intersects with the Cooleeny Stream or not.
- Item 11: Confirm how the proposed ecological exclusion zone between the site and Cooleeny stream with bunding and silt fencing would be implemented as the proposal includes for a new surface water drain and headwall at the stream.
- Item 12: Further details required in relation to the proposed bank protection and bank build up works.
- Item 13: Clarification what is meant by the reference to the drainage system (Moyne).
- Item 14: Confirmation of the location of the site compound location, which is different in the CMP.

2.13. The Applicant provided further information on 5th March 2025.

2.14. The Planning Authority deemed the response as 'significant further information' on 6th March 2025. The Applicant subsequently prepared revised notices in accordance with this requirement.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. The Planning Authority issued a *Notification of Decision to Grant Permission* (NoD) on 6th May 2025, subject to 14 no. conditions.

3.1.2. Notable conditions include:

Condition 2: Mitigation measures in the EIAR and EIAR Addendum, updated NIS and associated document must be implemented in full.

Condition 3: A maximum of 98,000 tonnes of feedstock per annum to be treated by the development.

Condition 4: Annual report on the operation of the facility to be prepared and submitted to the Planning Authority.

Condition 6: Quantity of chemicals.

Condition 7: Lighting system.

Condition 8: Archaeology.

Condition 12: Resource and Waste Management Plan (RWMP).

Condition 14: Financial contribution (€83,155).

[**Note**: It is recommended that the above conditions, or a similarly worded version of same, should be included on any Decision by the Commission which grants permission for the proposed development. [A summary of my review of the Planning Authority's application of conditions is included in Appendix A of this report.]

3.2. Planning Authority Reports

3.2.1. Planning Reports

The Planning Reports can be summarised as follows:

Zoning and Concurrent Application

- The site is in the open countryside. It is not the subject of a land use zoning objective.
- A planning application on the same site is running concurrently for a waste facility (Reg. Ref. 24/60978). [Note: The Planning Authority granted permission for this application in April 2025.]

Design and Layout

- The site has been significantly altered by the former mine facility and more recently by renewable energy infrastructure.
- The development would be visible from surrounding lands and from public roadways and nearby residences to the west.
- The proposed development is within a brownfield site and at a significant distance from the public road and neighbouring residential dwellings. The

proposed design, scale and layout of the development, together with the landscaping measures proposed, is considered acceptable.

Services

- The proposed access is via an existing entrance from the L3201 Local Road. There are no proposed changes to the existing entrance arrangement.
- HGV deliveries will use the L3201 and L4115 to travel between the site and M8 at Junctions 4, 5, and 6, which is the upgraded route previously used by Lisheen Mine traffic.
- The District Engineer has examined the application and has raised no issues with the site entrance or traffic proposals.
- Should permission be granted, the main access route to and from the development (during construction and operation) shall be required by condition to be from the L3201 and not from the L3202 to the west.
- The proposed car parking provision is adequate.

Lighting

- A condition can be attached to ensure lighting is suitably cowled to mitigate light spill or glare to nearby sensitive receptors.
- Lighting nuisance impacts should not pose an issue given the distance to public roadways and residences.
- The impact of lighting on wildlife is considered in the EIAR.

Wastewater

- Domestic wastewater onsite will be generated by the office and administrative building. The wastewater will be directed to a pump station east of the office. From there, will be pumped through an enclosed rising main to the primary digester within the bund, thus, integrating with the biomethane process for re-use.
- Contaminated water will be collected, stored and re-used as part of the process.

Water Supply

- The biomethane process requires approximately 60m³ of water daily, which will be met through rainwater harvesting runoff from roofs, hardstanding areas and yards. It will be collected in designated lagoons and basins.
- The overall level of demand for water from the Moyne Group Water Scheme is considered low.

Firefighting Requirements

- The facility must maintain a firefighting water supply capable of delivering 35 litres per second for 120 minutes. Since no public hydrant system is available, a 310m³ permanent water storage volume, filled by rainwater runoff, will serve firefighting needs.

Flood Risk

- The Flood Risk Assessment examines flood risk to the site from all sources (fluvial, pluvial, tidal, ground water, human error) and concludes that the development is within Flood Zone C.
- The surface water management measures show surface waters will be attenuated in the onsite lagoon.
- The potential for offsite flooding from surface water discharge is low.

EIAR

- The EIAR sets out the alternatives considered by the Applicant in relation to location, design and layout and technical details.
- The individual chapters in relation to population and human health; biodiversity; land, soils and geology; hydrology and hydrogeology; air quality; climate; noise and vibration; traffic and transportation; material assets (waste and utilities); archaeology and cultural heritage; landscape and visual impact have been considered and assessed.
- The Planning Authority is satisfied that the consideration of the impacts of the construction and operational phases of the development on each of these topics has been adequately undertaken.

- Chapter 19 of the EIAR assesses the potential risk of a major accident or disaster. Recommended mitigation measures include developing a Site Major Accident Prevention Policy and an Emergency Response Plan, prior to commencement of operations.
- The EIAR (and its Addendum) addresses interrelated effects (Chapter 20), cumulative effects (Chapter 21), and sets out the mitigation and monitoring proposals for the project (Chapter 22).

Appropriate Assessment

- The proposal has been assessed having regard to the requirements of the EU Habitats Directive.
- The Stage 2 AA (NIS) was revised as part of further information and considered that the mitigation measures to be employed were comprehensive and that significant adverse impacts on the conservation objectives for the Lower River Suir SAC would be fully mitigated.
- The proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives

Major Accidents and Disasters

- The Applicant provided further information in relation to the COMAH classification on the operation and development of the adjoining lands, noting the designations applied to the land under the National Bioeconomy Campus designation.
- The further information confirms that sensitive forms of development (i.e., uses which would be restricted by the consultation distance area, such as residential, educational and public buildings) would not be anticipated to form part of the overall campus facility and that the proposed land use (anaerobic digestion plant) would not, therefore, impair or obstruct the development of adjoining lands.
- The Land Use Planning Assessment included with the application confirms that the proposed development is classified as a 'Lower Tier' COMAH establishment and would be subject to the provisions of the Chemicals Act

(Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015.

- Impacts arising from a major accident or disaster are not likely to arise as the development would be strictly regulated to comply with the requirements of the COMAH regulations and the level of off-site risk posed by proposed development would be acceptable.

EPA Licence

- The facility will be subject to IE Licence from the EPA which will include for a range of monitoring requirements for emissions.

Conclusion

- The proposed development is acceptable at this location, would not seriously injure the visual amenities of the area or of property in the vicinity, would not have an unacceptable impact on the landscape character of the area, would not be detrimental to the natural heritage or cultural heritage of the area, and would otherwise be in accordance with the proper planning and sustainable development of the area.
- Recommends that permission be granted.

3.2.2. **Other Technical Reports**

Chief Fire Officer: No objection, The Planner's Report states that verbal discussions have been held with the with Assistant Chief Fire Officer and that that the proposed development does not give rise to concerns.

District Engineer: No objection.

3.3. **Prescribed Bodies**

An Taisce

No objection. Raised the following main concerns / issues:

- Emissions caused by feedstock production and the amount of fertiliser required.

- There is potential for fugitive emissions from methane leaks. The facility would therefore require careful monitoring.
- It is proposed that the digestate, as a by-product of the AD process, will be used as a bio-based fertiliser to be applied to farmland from which feedstocks are sourced. This could lead to impacts on ecosystems and biodiversity via indirect impacts.
- The supply of biomethane to local off-grid users would be preferable over injecting into the grid.
- Potential impacts on water quality. Proposed development is required to be compliant with the Water Framework Directive.

Environmental Protection Agency (EPA)

No objection. Raised the following main issues:

- The proposed development may require a licence under Class 11 of the EPA Act. However, the EPA has not received a licence application.
- A previous licence was issued in the past to Lisheen Milling Limited which operated on the site.
- The EIAR will be considered and assessed by the EPA as part of the licence application.
- The EPA cannot issue a determination on a licence application for the development until a planning decision has been made.

Health and Safety Authority (HSA)

Requests the Planning Authority to seek further information in relation to HSA requirements for COMAH developments and the potential for fire and major emergencies.

Uisce Éireann

No objection; recommends conditions. Raised the following main issues:

- Protection of drinking water sources from the potential adverse impacts of new development is a priority.

- The Water Framework Directive (WFD) requires that waters used for the abstraction of drinking water are protected to avoid a deterioration in quality.
- UÉ notes that the proposed development would discharge surface water to the Cooleeney stream. The Applicant must therefore comply with the WFD and River Basin Management Plan objectives to ensure the development would not impact on the water quality of source/receiving waters during the construction and operational phases.
- There can be no deterioration in the water quality and/or treatability of water at UÉs abstraction point(s) and/or watercourse(s) hydrologically and/or hydrogeologically connected to UÉs abstraction point(s).

Minister for Housing, Local Government and Heritage (Archaeology)

No objection; requests further information:

- The whole site, with the exception of a 0.5ha section of the southwest corner, has been stripped of topsoil under archaeological monitoring.
- It is proposed in Chapter 17 of the EIAR that all topsoil stripping in the southwestern corner of the site should be subject to archaeological monitoring.
- Recommends that an Archaeological Impact Assessment (AIA), including archaeological geophysical survey and archaeological test excavations be carried out as part of further information.
- A report containing the results of the AIA should be submitted to the Department and the Planning Authority prior to any decision so as to facilitate the formulation of an appropriate and informed archaeological recommendation.

National Environmental Health Service (NEHS)

No objection. Raised the following main issues:

- The most effective mitigation of noise during construction is to limit the hours of operation (which should be part of the CMP).
- Satisfied that subject to the mitigation identified in the EIAR being implemented that there would be adequate protection of drinking water.

- Odour management programme recommended.
- The schedule of mitigation measures set out in the EIAR (Chapter 22) and are adequate to protect public and environmental health.

3.4. Third Party Observations

The main issues raised are as follows:

- Environmental impacts arising due to run-off, dispersal of materials, including from storage and leachate.
- Noise, air pollution, light pollution concerns, including on residential properties.
- Customers are far away from the site which would result in long journeys for deliveries.
- It is not addressed how the digestate produced is going to be stored or dealt with.
- The EIAR section on alternative sites is lacking detail.
- The AA Screening Report cites incorrect legislation.
- Procedural issues and inaccuracies in the application, including in relation to location of site notices, cited distance(s) from nearest dwellings is misleading, operating hours not clearly defined in the application.
- Risk of fire and explosion.
- Devaluation of property.
- Impact on biodiversity, including local badger and buzzard populations.
- No benefits to farmers.
- Waste input concerns - ethically not right to cultivate crops for a digester which will have a negative effect on feed prices.
- Increase in carbon footprint.
- Odour concerns.
- Impact on groundwater sources.

- Inadequate consultation with local community.
- Flooding, particularly of the Claisín Stream / field boundary.
- Traffic, access and road safety concerns, particularly during construction phase.

4.0 Planning History

Applications of note

4.1. Reg. Ref. 2460978: The Planning Authority **granted permission** in April 2025 for the construction of a healthcare waste treatment and recycling facility and waste transfer station, together with ancillary works on the same site.

4.2. Reg. Ref. 17600440: The Planning Authority **granted permission** in January 2018 for the construction of a Phase III mushroom substrate (compost) production facility and ancillary works.

4.3. Reg. Ref. 18601296: The Planning Authority **granted permission** in May 2019 for the construction of a biorefinery facility operated by Glanbia comprising of a process building with processing areas, plant rooms, stores, personnel and administrative areas; external bunded process and storage areas; vessels and tanks; CHP plant; an effluent and water treatment plant; sewage treatment plant and ancillary works.

An Bord Pleanála refused an application for leave to appeal in June 2019 (ABP. Ref. 304627 refers). The Board Order stated that it had not been shown that the development in respect of which a decision to grant permission had been made would differ materially from the development as set out in the application.

Other Applications

4.4. The surrounding lands, including the wider bioeconomy campus lands, have been subject to several planning applications over the past number of years. The applications comprise of various types of light industry, energy installations, mine related development and other commercial and employment uses.

4.5. Recent applications include the construction of a Solar PV development comprising of ca. 214,800 no. photovoltaic panels laid out in arrays (Reg. Ref. 211128), a workshop building and truck washout facility (Reg. Ref. 2360281), a change of use

from of the former Lisheen Mine maintenance depot to an agri-food sector R+D facility (Reg. Ref. 211171) and the construction of a light industrial building for mechanical assembly, including administration block, truck prep building, solar panels and rainwater harvesting (Revive Environmental Facility) (Reg. Ref. 21709).

5.0 Policy Context

5.1. Local Policy

Tipperary County Development Plan 2022-2028

Background

5.1.1. The Tipperary County Development Plan 2022-2028 ('County Development Plan') ('CDP') was made on the 11th July 2022 by the Elected Members of Tipperary County Council. The Plan is a framework to deliver for communities, through protecting the environment, reducing energy demands, maintaining the viability of towns, villages and rural communities and supporting job creation.

Overview: National Bioeconomy Campus

5.1.2. The CDP identifies Thurles and its environs as a driver of the bioeconomy both for within Tipperary and Ireland (Section 4.3.3). The focus is to support bioenergy and biotechnology. A 445ha site at Thurles and Lisheen has been designated as a strategic national economic and employment centre. The appeal site lies within this area.

5.1.3. The site is one of six designated locations in the EU for leading the next generation of the bioeconomy. The development of the bioeconomy campus at Lisheen is therefore plan-led and will benefit from a masterplan to ensure development is carried out in accordance with the aims and objectives associated with the bioeconomy.

5.1.4. The Development Plan identifies the Lisheen Mine and Lisheen Bog area, centred on the National Bioeconomy Campus, as the first candidate 'Decarbonisation Zone' (DZ) in the county, with co-benefits in terms of tourism and amenity. This DZ designation recognises the importance of the bioeconomy in Tipperary and the

potential for synergies with other areas including wind energy and tourism and amenity.

5.1.5. It is an objective of the Development Plan to prepare a masterplan (non-statutory) for the former mining landbank. No definite timeline for the publication of the masterplan has been defined, however.

Chapter 2: Core Strategy

- Strategic Objective SO-1 is to support the just transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy.
- Strategic Objective SO-2 is to facilitate and promote the development of Clonmel, Nenagh and Thurles as Key Towns, economic drivers and significant population and service centres for the Southern Region.
- Strategic Objective SO-3 aims to support the implementation of the County Settlement Hierarchy, in regenerating our towns and villages, creating vibrant town centres, attracting new residents and delivering quality residential neighbourhoods.

Chapter 3: Low-Carbon Society and Climate Action

- Policy 3-1 aims to promote and facilitate renewable energy development, in accordance with the policies and objectives of the Tipperary Renewable Energy Strategy 2016 (and any review thereof), and the Tipperary Climate Adaptation Strategy 2019.
- Policy 3-2 is to support and encourage innovative initiatives that promote the development of the Circular Economy as set out in the Waste Action Plan for a Circular Economy (DECC, 2020). New developments that generate a significant amount of waste heat may be required to submit a 'Heat Loss' Assessment, where practical, to demonstrate effective reuse of waste heat.

Chapter 4.0 Settlement Strategy

Section 4.3.3 'Thurles' states that Thurles is a strategically located urban centre of significant influence in a sub-regional context, with excellent road and rail linkages with Limerick, Dublin and Cork… Having consideration to the designation of nearby Lisheen as a National Bioeconomy Campus, Thurles will be a driver of the

bioeconomy, including bioenergy and bio-technology. With the 445-hectare site, Thurles and Lisheen will be a strategic national economic and employment driver as one of six designated sites within the EU for piloting the next generation of the bioeconomy. The development of the bioeconomy campus at Lisheen will be plan-led with a masterplan to be put in place. Synergies between the proposed campus and Thurles town will be identified at LAP stage.

Chapter 8: Enterprise and Rural Development

Section 8-3 states that proposals for employment generating developments of a 'strategic/regional scale', at locations outside of designated lands in settlements, will be facilitated subject to the demonstration of a need to locate in a particular area. These will be considered on a case by case basis, and must demonstrate that; (a) They are compatible with relevant environmental protection standards, the protection of residential amenity and the capacity of water and energy supplies in the area, and, (b) They would not compromise the capacity of strategic road corridors in line with the Spatial Planning and National Roads, Guidelines for Planning Authorities (DHLGH, 2012).

- Objective 8A aims to work in partnership with national and regional stakeholders, including IDA Ireland, Enterprise Ireland etc. in attracting economic investment and employment opportunities to support national competitiveness, regional development and to strengthen the county's resilience.
- Objective 8D is to promote 'Strategic Employment Locations' as already identified in towns, and to continue to support a strong spatial framework for economic development, by ensuring that appropriate lands are zoned and serviced, by developing Masterplans/Frameworks for strategic landbanks, and applying land activation measures, where appropriate, to activate these lands.

Chapter 10: Renewable Energy and Bioeconomy

- Policy 10-3 is to support and facilitate the development of a sustainable and economically efficient agricultural and food sector and bioeconomy, balanced with the importance of maintaining and protecting the natural services of the environment, including landscape, water quality and biodiversity

- Policy 10-4 seeks to ensure the sustainable management of waste and the application of the 'Circular Economy' concept in line with the provisions of the National Waste Management Plan for a Circular Economy and the Waste Management Infrastructure – Guidance for Siting Waste Management Facilities, (Government of Ireland, 2022) in the development and management of new development.
- Policy 10-5 is to support and facilitate the co-location of renewable energy development and technologies to ensure the most efficient use of land identified as suitable for renewable energy generation.
- Objective 10-A is to support and facilitate new development that will produce energy from local renewable sources such as hydro, bioenergy, wind, solar, geothermal and landfill gas, including renewable and non-renewable enabling plant, subject to compliance with normal planning and environmental criteria, in co-operation with statutory and other energy providers. The provisions of the Tipperary Renewable Energy Strategy (and any review thereof) as set out in Volume 3, will apply to new development.
- Objective 10-D aims to support the emerging bioeconomy sector, including continued support for the National Bioeconomy Campus at Lisheen, Co. Tipperary.
- Objective 10-E is to support the diversification of the agriculture sector as part of decarbonisation, and its role in energy production, including anaerobic digestion and green gas production.
- Objective 10-G is to support the development of a 'Centre of Excellence for Sustainable Energy' in Nenagh, thereby harnessing economic specialism in the sector.

Chapter 11: Environmental and Natural Assets

- **Policy 11-1** is in relation to natural environment and human health.
- **Policy 11-2** is in relation to protection, integrity and conservation of European Sites.

- **Policy 11-4** is in relation to the conservation, protection and enhancement of local biodiversity.
- **Policy 11-7** is in relation to the protection of water quality in accordance with the EU WFD.
- **Policy 11-18** is in relation to controlling noise disturbance.
- **Policy 11-19** is in relation to controlling light pollution.
- **Objective 11-A** is in relation to protection and promotion of the environment, biodiversity and our natural systems.
- **Objective 11-G** is in relation to applying sustainable environmental standards.
- **Section 11.8** is in relation to noise and light emissions.

[Please refer to the Tipperary County Development Plan 2022 - 2028 for the full citation of each policy and objective listed above.]

Other Relevant Chapters

- Chapter 12: Sustainable Transport
- Chapter 13: Built Heritage
- Chapter 15: Water and Energy Facilities

Volume 3: Appendix 6 'Development Management Standards'

The following development management standard are considered particularly relevant in the assessment of this case:

- Section 2.2 Flood Risk Management
- Section 3.1 Sustainable Building Design
- Section 3.2 Construction Environmental Management Plans
- Section 3.3 Sustainable Urban Drainage Systems and Nature-Based Solutions
- Section 3.5 Lighting
- Section 3.6 Noise
- Section 3.10 Supporting Sustainable Transport

- Section 3.13 Water Section 5.1 Sustainability Statement for Commercial and Employment Development
- Section 5.7 Industrial Development
- Section 6.1 Road Design & Visibility at a Direct Access
- Section 6.2 Traffic and Transport Assessments
- Section 6.3 Road Safety Audits
- Section 6.4 Mobility Management Plans/Workplace Travel Plans
- Section 6.5 Car and Cycle Parking Provision and Electric Vehicle Charging Standards

Tipperary Council Climate Action Plan 2024-2029 (LACAP)

Tipperary Decarbonising Zone

The Tipperary County Council Climate Action Plan (LACAP) is a standalone plan. It sets out how the Council is reducing energy use and increasing energy efficiency across its own properties, facilities and fleet, and also how the Council is actively influencing, facilitating and advocating for climate action across other sectors and communities in how they achieve their own climate actions and targets. The LACAP comprises 100 actions, along with opportunity areas and actions for the Tipperary 'Decarbonising Zone' (DZ).

The National Bioeconomy Campus at Lisheen

The former mine complex, located at Lisheen, Thurles, is designated as the National Bioeconomy Campus. The National Bioeconomy Campus is supported by the Mid-West Regional Enterprise Plan to 2024, and it is stated that ‘the campus is a critical piece of infrastructure which will enable diversification of business activities in the agri-food and marine sectors in the rural economy, attracting and retaining workers and businesses in the region and in turn driving innovation and investment’.

Figure 6.1 shows the location and extent of the Mid-Tipperary Decarbonising Zone, including the National Bioeconomy Campus, which is where the subject site is located. I note that the Council has identified the need to prepare a masterplan to guide the development of the National Bioeconomy Campus and associated investment priorities.

Section 6.8 ‘Mid-Tipperary DZ Actions’ includes the following objectives:

1. Support and promote the development of the National Bioeconomy Campus located at Lisheen, Co. Tipperary.
4. Enable sustainable renewable energy development, research and development in the area both at the commercial and community scale, including ‘investigate opportunities for shared learning for example in the area of Anaerobic Digestion (at Bioeconomy Campus), bio-mass processing, renewable energy facilities for Local Authority staff, councillors and stakeholders to improve knowledge of this industry type’.

Action 55 of the LACAP is to prepare a master plan for the National Bioeconomy Campus located at Lisheen, Co. Tipperary in line with the objectives of the County Development Plan 2022 – 2028.

Action 100 is to seek to actively support the development of the bioeconomy in Tipperary, including new and emerging technologies, both in the Decarbonising Zone (National Bioeconomy Campus) and elsewhere in the county in line with the National Bioeconomy Action Plan 2023 – 2025, whilst advocating and exerting influence to ensure bioeconomy related development and activities promote climate action and adaptation co-benefits, and do not contravene relevant environmental protection criteria or cause significant negative environmental effects.

5.2. Regional Policy

Regional Spatial and Economic Strategy (RSES) for Southern Region, 2022 – 2028 (RSES)

The RSES provides a long-term, strategic development framework for the future physical, economic and social development of the Southern Region. It includes Metropolitan Area Strategic Plans (MASPs) to guide the future development of the Region’s three main cities and metropolitan areas – Cork, Limerick-Shannon and Waterford.

The strategy supports the transition towards a low carbon economy and climate resilient society across all sectors. It also supports the implementation of the Regional Waste Management Plan for the Southern Region, 2015-2021.

The following Regional Policy Objectives (RPO's_ are considered particularly relevant in the assessment of this case:

- RPO 87: Low Carbon Energy Future
- RPO 95: Sustainable Renewable Energy Generation
- RPO 96: Integrating Renewable Energy Sources
- RPO 107: Regional Waste Management Plan for the Southern Region, 2015-2021
- RPO 109: Bio-Energy Implementation Plan
- RPO 219: New Energy Infrastructure

[Please refer to the Regional Spatial and Economic Strategy (RSES) for Southern Region, 2022 – 2028 for the full citation of each RPO listed above.]

5.3. **National Policy**

The National Development Plan 2026 – 2035

The National Development Plan 2026 – 2035 (NDP) was published in July 2025. It seeks to drive Ireland's long term economic, environmental and social progress over the next decade, in accordance with the spatial planning context of the NPF. The NDP is Ireland's long-term strategic investment plan, outlining how the government will invest in the country's infrastructure and development.

The plan sets out:

- total investment of €275.4 billion over the period 2026 to 2035,
- sectoral capital allocations of €102.4 billion for the years 2026 to 2030, and
- a further €100 billion for 2030 to 2035.

The review includes an additional €34 billion relative to the previous 2021-2030 NDP, including equity funding of €10 billion to 2030 to fund large strategic projects in energy, water and transport.

Climate Action and Low Carbon Development (Amendment) Act, 2021

The Climate Action and Low Carbon Development Act, 2021 was signed into law in July 2021. The Act strengthens the provisions of the 2015 Act by adding a specific decarbonisation target of climate neutrality by 2050 (at the latest), with the additional recognitional of the importance of protecting biodiversity.

The Act brings Ireland's approach into line with the EU commitment to climate neutrality by 2050 as set out in the European Climate Law of 2021, and into line with many other climate laws.

The Act establishes national climate objectives that the State shall pursue and achieve by no later than the end of the year 2050, including the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. The preparation of local authority climate action plans is a key element.

EU Water Framework Directive 2000/60/EC

The EU Water Framework Directive (2000/60/EC) aims to protect and improve water quality in waterbodies across Europe, including rivers, lakes, groundwater, and coastal waters.

It requires that member states must manage their water resources through River Basin Management Plans to achieve at least "good" ecological status by 2027. In Ireland, the Directive is transposed into national law, requiring controls on water abstraction and impoundments, with the Environmental Protection Agency (EPA) administering the registration and licensing system.

Project Ireland 2040: National Planning Framework (First Revision April 2025)

The National Planning Framework (NPF) sets out a vision for the future development of the country. It includes a number of strategic goals in respect of transitioning to a low carbon and climate resilient society and the sustainable management of waste resources. It contains a number of relevant National Strategic Outcomes (NSOs) and National Policy Objectives (NPOs) which can be summarised as follows:

- Section 9.2 Resource Efficiency and Transition to a Neutral Carbon Economy refers specifically to Biomethane:

  'Biomethane is a carbon-neutral renewable gas made from farm and food waste through a process known as anaerobic digestion. A National Biomethane Strategy has been published63 which requires

the development of policies with the primary objective of delivering the ambitious target of producing 5.7 TWh of indigenous biomethane by 2030. It is estimated that over 80% of biomethane will be produced from grass silage and cattle slurry. This will require grass from 120,000ha (3% of total agricultural area) to produce the required feedstock. To meet Ireland's target of 5.7 TWh of biomethane by 2030, a large number of anaerobic digestion facilities will need to be developed, alongside the related infrastructure necessary to support these facilities.'

In relation to heating, it is stated that 'the National Heat Study Report 2022 identified that a combination of district heating, biomethane and heat pumps in homes, businesses and industry will play avital role in fast decarbonisation'.

Section 5.4 'Planning and Investment to Support Rural Job Creation' states *inter alia* that 'there are opportunities from a climate transition perspective for the diversification of farming enterprises to include a focus on areas such as biomethane production and forestry'.

The following NSO's and NPO's are considered particularly relevant in the assessment of this appeal case:

- NSO 8: Transition to a Carbon Neutral and Climate Resilient Society
- NSO 9: Sustainable Management of Water and other Environmental Resources
- NPO 32: Enhance the competitiveness of rural areas by supporting innovation in rural economic development
- NPO 30: Facilitate the development of the rural economy in a manner consistent with the national climate objective
- NPO 67: Support the circular and bioeconomy
- NPO 70: Promote renewable energy use and generation at appropriate locations
- NPO 76: Promotes the sustainable management of waste

[Please refer to the RNPF for the full citation of each RPO listed above.]

Climate Action Plan, 2025 (CAP 25)

CAP 25 is third Climate Action Plan to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. The Plan states that in relation to biomethane, and to further support the decarbonisation of the heat / energy sector, Government has agreed to the introduction of the Renewable Heat Obligation (RHO), with scheme parameters now being finalised for approval.

The RHO will obligate suppliers over a certain threshold to ensure a proportion of the energy they supply is renewable, and it will incentivise the production of indigenously produced biomethane, in line with the National Biomethane Strategy published in 2024.

The RHO states that grant aid has will be provided towards the development of the biomethane sector and this is expected to drive expansion of the anaerobic digestion sector towards the target of 5.7 TWh by 2030 funding of €40 million has been secured to further the ambition of the sector. As energy policy lead, the Department of Climate, Energy and the Environment (DECC) will be responsible for this second round of capital funding from 2026.

The Climate Action Plan 2025 builds upon last year's Plan (CAP 24) by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024. As such, CAP 24 also remains relevant.

Climate Action Plan 2024 (CAP 24)

CAP 24 was first published in June 2019 by the Department of Communications, Climate Action and Environment. It is the third annual update to Ireland's Climate Action Plan 2019. The plan is prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and following the introduction, in 2022, of economy-wide carbon budgets and sectoral emissions ceilings. The Plan states that decarbonised gases such as biomethane will be a critical component for Ireland's energy system.

The Plan's KPIs include a target for 5.7 TWh to be produced by 2030. The Plan KPIs also specify at least 1 TWh consumption of zero emission gas for industrial heating by 2025 and 2.1 TWh by 2030.

Ireland's National Biomethane Strategy, 2024

The National Biomethane Strategy sets out the necessary policy and regulatory measures, and provides a roadmap, to developing a biomethane industry of scale in Ireland. The development of the Strategy focused on a framework of five interlinking pillars seen as critical to target delivery:

- Sustainability
- Demand for biomethane
- Bioeconomy and the circular economy
- Economics of biomethane
- Enabling policy requirements

The above pillars have been aligned with twenty-five key strategic actions. Each action looks to address the challenges and support the opportunities anaerobic digestion and biomethane production has to offer.

The Government is committed to supporting delivery of up to 5.7TWh of indigenously produced biomethane by 2030.

Ireland's 4th National Biodiversity Action Plan 2023–2030

The 4th National Biodiversity Action Plan (NBAP) sets the national biodiversity agenda for the period 2023-2030 and aims to deliver the transformative changes required to the ways in which we value and protect nature. The NBAP will continue to implement actions within the framework of five strategic objectives, while addressing new and emerging issues:

- Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity.
- Objective 2 - Meet Urgent Conservation and Restoration Needs.
- Objective 3 - Secure Nature's Contribution to People.
- Objective 4 - Enhance the Evidence Base for Action on Biodiversity.
- Objective 5 - Strengthen Ireland's Contribution to International Biodiversity Initiatives.

5.4. Other National Guidance and Policy Documents

- RED III (European Renewable Energy Directive (EU/2023/2413))
- *European Green Deal, 2020*
- *National Biodiversity Action Plan 2023-2030 (NBAP)*
- *The Long-Term Strategy on Greenhouse Gas Emissions Reductions, April 2023*
- *National Energy Security Framework, 2022*
- *Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR), 2022*
- *The Policy Statement on Security of Electricity Supply, 2021*
- *National Waste Policy 2020-2025, A Waste Action Plan for a Circular Economy, 2020*
- *Design Manual for Urban Roads and Streets, 2019*
- *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment, 2013*
- *The Planning System and Flood Risk Management – Guidelines for Planning Authorities, 2009*

5.5. Natural Heritage Designations

No designated European Sites apply directly to, or adjoin, the subject lands. The nearest European Site is Galmoy Fen (Site Code: 001858), which is roughly 9.6km to the northeast.

The distance and direction from the nearest European sites to the appeal site are listed in Table 5.1 below. These sites are all identified as Special Areas of Conservation (SACs).

The Lower River Suir SAC (002137) is the only site with a potential ecological connection to the appeal site.

The Cooleeny Stream intersects the southernmost point of the site where it extends as a narrow strip of land to facilitate the provision of a surface water discharge point to this watercourse. Therefore, the Lower River Suir SAC (Site Code: 002137) is considered relevant due to the proximity of the appeal site and based on the source-pathway-receptor relationship.

Table 5.1: European Sites

Site Code	**Site Name**	**Distance (approx.)**	**Direction**
Special Area of Conservation (SAC)			
001858	Galmoy Fen	9.6km	Northeast
000407	The Loughans	9.8km	East
000849	Spahill and Clomantagh Hill	11.1km	East
000831	Cullahill Mountain	13km	East
002137	Lower River Suir	14.2km	Southwest
002162	River Barrow and River Nore	15.9km	Northeast
000934	Kilduff, Devils bit Mountain	16.6km	Northwest

6.0 The Appeal

6.1. Grounds of Appeal

6.1.1. The Commission has received 3 no. third party appeals from the following parties:

- TJ Maher
- David Hogan and Mary Ann Cantwell-Hogan
- Philip and Mary Bowe

6.1.2. The main grounds of appeal can be summarised as follows:

Land Devaluation / Alternative Sites / Development Potential

- The proposed development would be too close to existing residential houses and lead to unacceptable amenity impacts, including odour, noise, light.
- Third party lands would be devalued as a result.
- Would reduce the potential of being able to develop sites for new homes for family members.
- The proposed development should be relocated to an alternative site within the bioeconomy campus.
- The EIAR identifies alternative sites up to 30km and 50km away, but these are not realistic options and appear only to be an attempt to satisfy planning requirements. It is also difficult to assess in detail these other sites given the limited information provided as part of the application.
- Other sites located elsewhere on the bioeconomy campus would not interfere with third party lands and should be considered instead.
- The Commission should investigate and determine the minimum setback distance for such a facility from existing houses.

Amenity Impacts

- The proposed development would negatively affect the air quality.
- The mitigation measures put forward in the application are not adequate.

- The storage compounds are not covered which would allow odour to rise up and escape into the open air. This could affect nearby beef and dairy farms.
- The odours could also attract vermin and flies, thus, spreading disease. This is a threat to cattle, particularly in terms of contracting TB.
- It is not clear how odour mitigating measures will be monitored and tested.
- The separation distances between existing houses and the proposed facility are not adequate.
- There has been a welcome reduction in noise, traffic and other impacts since the mine closed.
- Permission should be refused until appropriate planning guidelines are in place for such facilities.

Traffic and Transport

- The application proposes to direct all traffic to the Cooleeney Road and the main entrance serving the overall bioeconomy campus. This should be a condition of planning, if the development is permitted.
- No traffic should be permitted to use the Killoran Road as it is not suitable for heavy traffic and is used by farms in the area.

Flooding / Drainage

- The application proposes to direct surface water flows to a nearby field boundary (drain) roughly 90m south of the site. However, this drain cannot take any more water during the winter months. It will flood otherwise.
- A proper assessment of the local waterway and drainage system is required.
- The land in the area currently floods and the source is the Claisín stream running from the mine.

Landspreading / Management of Digestate

- The application does not clearly explain how a significant amount of liquid digestate will be disposed. For example, will this be used for land spreading? If so, where, and what assessment has been undertaken to establish the lands are appropriate for this purpose?

- Most providers who will provide waste / feed for the anaerobic digestion plant are further than 40km from the site, and some are further than 60km. The proposed development should be located beside the sources of waste and feed, and not far away, which could lead to traffic impacts.
- As the exact locations of feedstock providers have not been disclosed in the application, it is not possible to properly assess the potential environmental impacts.
- ACP should investigate why the exact locations of potential feedstock providers and receivers have not been specified by the Applicant.
- If the development is permitted to accept feedstock from any location / provider, and not be identified by the application, this would undermine the rationale for locating the development within the bioenergy campus.

Other Issues

- The proposed anaerobic digestion plant would not benefit the local economy and is not employment intensive.
- Inadequate public consultation was undertaken, including with landowners.
- The Applicant should have engaged more fully with stakeholders, including property owners in the vicinity of the site. The previous public meeting that was held is not sufficient.
- The application, including the EIAR, has failed to consider cumulative impacts posed by the proposed development together with other forms of planned development in the area, notably the proposed healthcare waste treatment and recycling facility (Reg. Ref. 2460978).
- There is an overconcentration of similar such waste facilities in this area.

6.2. Applicant Response

6.2.1. The Commission received an Appeal Response from the Applicant on 27th July 2025. The main issues raised are as follows:

Location of Development

- Planning policy explicitly supports this type of development in this particular location (response cites various policy documents).
- The Development Plan identifies Lisheen as a designated Decarbonisation Zone (DZ) and specifically supports the expansion of the bioeconomy and renewable energy sectors in this area.
- The proposed development is wholly compatible with adjacent uses and has been designed to support and enhance the viability of local farms.
- The facility includes engineered bunding, enclosed tanks, odour control systems and dedicated infrastructure for the handling and storage of materials to ensure the control of odour and other potential nuisances.
- The site is in a brownfield setting forming part of the former Lisheen Mine complex. It is well away from the public road and more than 300m from the nearest dwelling.
- The visual context for the site is already characterised by several permitted industrial and agri-industrial activities.
- The proposed facility is modest in size when compared to adjoining facilities and does not represent industrial intensification or uncontrolled proliferation of the area.
- The development is not a conventional waste facility, such as a landfill, incinerator, or waste storage depot. It is a renewable energy generator which will transform low-value agricultural byproducts into biomethane fertiliser. This is consistent with key planning policy objectives.

Cumulative Effects Assessment

- The application was submitted in accordance with the requirements of the EIA Directive (2011/92/EU).
- The healthcare and waste treatment facility (Reg. Ref. 2460978) was submitted after the EIAR and EIAR Addendum for the subject application were completed.

- The issue of ccumulative effects is comprehensively addressed in the enclosed Supplementary Commutative Effects Assessment (see Appendix A of Appeal Response).
- The assessment concludes that no significant adverse cumulative effects will arise when the healthcare and waste treatment facility on adjoining lands is considered in combination with the proposed development.

Air Quality and Odour

- The EIAR (Chapter 11) comprehensively addresses odour and air quality and is informed by an air quality specialist.
- The results show that the predicted worst case odour exposure is well below the relevant threshold and affects a commercial building only, not a dwelling.
- All residential receptors are further than 300m from the nearest site boundary, which is outside the zone of influence for odour and dust dispersion. The predicted dust levels are in line with industry standards.
- All material processed or stored onsite will be in enclosed systems, including concrete clamps, covered sheds, and sealed and bunded tanks.
- The proposed development is not an unregulated or uncontrolled waste facility. It is a modern, enclosed anaerobic digestion plant on a brownfield site, designed to operate within strict regulatory controls.

Vermin and Spread of Disease

- The facility will process agricultural feedstocks which are typical of a normal farming activity.
- It will operate similarly to a highly regulated and enclosed version of a modern farmyard, but with significantly greater environmental controls (see Page 10 of response for key design and operational control measures).
- The facility has already received Stage 1 Approval from the Department of Agriculture, Food and the Marine (DAFM), thus, confirming its suitability in terms of design, layout and biosecurity.
- The assertion that there would be an increase in vermin or disease due to the proposed development is not supported by any factual basis or evidence.

Traffic and Access

- The proposed development will be accessed via the existing access road and does not involve any vehicles using the Killoran Road.
- The route for the construction and operational phases is suitable for HGV's and no road upgrades are required to support the anticipated traffic volumes.
- The proposed development poses no unacceptable traffic or safety impacts.

Drainage and Flooding

- It is assumed that the reference to the Claisín Stream is a local name for the Cooleeney Stream, which is the designated name for the watercourse and into which the site will discharge.
- The proposed drainage strategy will not increase surface water discharge beyond existing greenfield rates. Instead, it will reduce overall runoff levels compared to the current undeveloped site.
- The drainage system includes flow attenuation and water quality improvement measures which would deliver environmental and flood mitigation benefits.
- There would be no increase in flood risk to the Cooleeney Stream or adjoining properties.
- The application is supported by a Site-Specific Flood Risk Assessment and Infrastructure Design Report, together with information provided as part of further information response to the Planning Authority.

Public Consultation

- The Applicant has undertaken comprehensive public consultation and engaged with the local community and other stakeholders.
- Community feedback has been largely supportive of the proposal.
- The Applicant has met and exceeded all reasonable expectations for public consultation and third party claims of insufficient consultation are unfounded.

Land Devaluation and Future Development Potential

- The perceived impact of a development on property value is not a material planning consideration under Irish planning law.

- There is no evidence the demonstrates anaerobic digestion or biomethane facilities developed to appropriate standards would result in the devaluation of surrounding land or property.
- The facility would be a positive long-term use of previously disturbed land, with the potential to support rural economic activity, secure farm income through feedstock supply agreements, and contribute to Ireland's climate objectives.

Digestate Management and Land Spreading

- The management and land spreading of digestate falls under the remit of existing regulations overseen by the DAFM and local authorities – land spreading is not, therefore, a material planning consideration.
- The digestate will only be applied to land during the open spreading season.
- There is no requirement to name end-user farms as these farms will vary over the lifetime of the facility.
- Only feedstocks that comply with the EPA industrial emissions license and DAFM approvals will be accepted at the facility.

Feedstock Supply and Control

- The facility will not produce or store excess liquid digestate. It will produce a solid, bio-based fertiliser with a high dry content, similar to compost.
- The proposed system is therefore fundamentally different from traditional slurry-based operations, which is a concern raised by third parties.
- There would be no long-term onsite storage or disposal of liquid digestate.
- The facility is not reliant on any single supplier and is designed to be flexible in sourcing feedstock over its lifetime – a necessary feature of all anaerobic digestor operations.

Alternative Sites

- The EIAR (Chapter 5) provides a thorough assessment of all reasonable alternatives considered, including alternative locations, designs, scales, and technologies.

- The subject site at Lisheen mine was selected after a comprehensive, evidence-based site selection process, which is compliant with the EIA Directive and EPA Guidelines.

6.3. Further Responses

Third Party Submission

6.3.1. A further response was received from an Appellant (David Hogan & Mary Ann Cantwell-Hogan) on 28th July 2025. The submission raises some similar issues and concerns as per their original appeal.

The main issues raised are summarised as follows:

- Permission should be refused until appropriate planning guidelines are in place for proposed anaerobic digestion plants.
- The potential cumulative impacts on air quality should have been addressed in the application for both the subject development proposal and a bioproducts campus at Derryville (Reg. Ref. 2260395), which is roughly 2.1km from the appeal site.
- Both of these facilities involve an AD plant and would have similar construction and operational activities, including the intake of feedstock and production of digestate.
- The healthcare waste treatment facility permitted by the Planning Authority under Reg. Ref. 2460978 was permitted six days prior to permission being granted for the subject application and, thus, should have been subject to a further information request in terms of potential cumulative impacts.
- There should be designated HGV routes for all feedstock providers. However, this is not the case for two unidentified providers situated in north Tipperary.
- Reiterates concerns regarding the level of public consultation undertaken by the Applicant stating this was inadequate.

7.0 **Assessment**

Having examined the application details and all other documentation on file, including the grounds of appeal, responses to same from the Planning Authority and observations on the appeal, having inspected the site, and having regard to the relevant national and local policy and guidance, I consider the main issues in relation to this appeal are as follows:

- Land Use and Location
- Amenity Impact
- Flooding and Drainage
- Traffic and Transport
- Cumulative Effects
- Other Issues

7.1. **Land Use and Location**

National Bioeconomy Campus

7.1.1. The appeal site is in a in a rural area roughly 15km northeast of Thurles and 6km southwest of Urlingford in County Tipperary. It lies within the former Lisheen Mining Complex which operated as a largescale lead, zinc and silver mine between 1999 to 2015. Since its closure, however, the site has been undergoing redevelopment as the National Bioeconomy Campus where there is a focus on developing sustainable and circular economy initiatives.

7.1.2. The land has been restored in recent years in accordance with a restoration and aftercare plan. The previous mining infrastructure and related industry has largely been removed from the site and contemporary planning policy now supports the creation of a bioeconomy campus which has a focus on recycling and waste management, as well as the production of sustainable materials and products.

7.1.3. The proposed development is for the construction of an anaerobic digestion plant. The main components comprise primary digester tanks; secondary digester tanks; feed hoppers; technical rooms; biogas conditioning units; process, storage and

buffer tanks; a suspension buffer tank; process area and runoff storage tank; digestate process tank; digestate liquids recycle storage tank; and a liquid feed-mix tank, plus ancillary works. The structures range in height across the site with the tallest structures forming part of the facility, the digester tanks, standing at roughly 14.5m.

7.1.4. The main vehicular access to the facility would be via the existing entrance from the L3201 Local Road, which is to the east of the site. I note that there are no proposed changes to the existing entrance arrangement and that HGV deliveries will utilise the L3201 and L4115 to travel between the site and M8 at Junctions 4, 5, and 6, which is the upgraded route previously used by traffic associated with the former mining complex. This is important in the context of third party concerns regarding vehicles, including HGV's and feedstock deliveries, potentially using routes close to residential properties and working farms in the surrounding area. [This issue is addressed in further detail under Section 7.4 'Traffic and Transport' below'. However, I note that the proposed transport routes for the facility will avoid using the Killoran Road, which is a concern raised by third parties.]

7.1.5. Importantly, I note that an Industrial Emissions (IE) licence is required for the operation of facility under the provisions of the Environmental Protection Agency Act 1992, as amended ('the EPA Act'). Class 11.4(a)(i) of the Act states that a licence is required for the disposal of non-hazardous waste where it exceeds 50 tonnes per day and involves biological treatment. The facility is designed to accept and treat a total of 98,000 tonnes pa, which would exceed the threshold specified in the Act.

7.1.6. The purpose of an IE licence is to prevent and control pollution from specified industrial and agricultural activities and to ensure they operate within strict environmental protocols in order to protect the environment and human health.

7.1.7. The proposed development is also classified as a 'Lower Tier' COMAH establishment. It is therefore subject to the provisions of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015.

7.1.8. I note that third parties state that the proposed development is unsuited to this area due to its proximity to existing houses and that it would lead to unacceptable amenity impacts, including odour, noise, light. They also state that the application has not

adequately assessed the matter of alternative sites for the proposed facility, which is a requirement for the purposes of EIA, and that locating the development close to residential properties would reduce the potential of landowners of developing sites for future residential purposes, including for family members. They proceed to say that the facility would lead to a devaluation in land values.

7.1.9. In this regard, I would note that the Tipperary County Development Plan 2022-2028 identifies Thurles and its environs as a driver of the bioeconomy both for within Tipperary and Ireland. The focus is to support bioenergy and biotechnology. The CDP identifies a large 445ha site at Thurles and Lisheen to be developed as a 'strategic national economic and employment centre' within which the subject site forms part of. The Development Plan also identifies the former Lisheen Mine and Lisheen Bog area, which is centred on the National Bioeconomy Campus, as a 'Decarbonisation Zone' (DZ).

7.1.10. A DZ is a defined spatial area, identified by a local authority, in which a range of climate mitigation, adaptation and biodiversity measures are identified to address local low carbon energy, greenhouse gas emissions (GHG's), and climate needs. Local authorities across the country have selected DZs as part of their respective Local Authority Climate Action Plans, and the one at Lisheen Mine applies to County Tipperary. DZs can address multiple energy and non-energy related issues that drive decarbonisation such as mobility, heat, buildings, infrastructure, fuel energy poverty, skills, employment, well-being, circular economy and land use and are an important concept which allow local authorities to innovate and develop demonstrator projects which – where successful – can be replicated nationally.

7.1.11. There is a presence of intermittent rural dwellings in the surrounding vicinity, which is typical of a rural environment such as this. However, the nearest residential property is more than 300m to the west of the site along the Killoran Road. There are also further detached houses situated on this public road, but these are located further away again and on the far side of an unnamed local road. I note that there is an existing derelict building close to the southwest corner of the site. However, this is not a residential property and instead functioned as a laboratory / office associated with the former mine. I observed during my site inspection that the building currently lies vacant. It also does not form part of the development proposal (i.e., it lies outside the red line boundary).

7.1.12. Having regard to this, I consider there would be no dwellings or sensitive uses in proximity to the proposed development and given the separation distances involved, and nature of the facility as a waste management and renewable energy facility, I there would be any significant amenity impacts arising for the local population, subject to the mitigation measure included in the application (see relevant sections of the EIAR and Section 8.5.4 below).

7.1.13. Furthermore, I note that the wider Lisheen complex currently comprises several existing industrial and renewable energy activities, including Lisheen and Bruckana Wind Farms. Lisheen wind farm comprises 18 turbines on the former mine site and further infrastructure on the surrounding lands. Other projects and developments within 2.5km of the appeal site also include recycling facilities, biorefineries, solar farms, milking units, food processing plant, and biorefinery feedstock production facilities. [See Figure 3.1 of the Applicant's Planning Report for further details 'Map of long list of other existing and/or approved projects which are potentially relevant', dated 31st Oct 2024.]

7.1.14. These types of industry are in accordance with the principles of the bioeconomy and are focused on using renewable resources to produce food, feed, materials and energy, whilst reducing waste, with a view to achieving a sustainable and climate neutral society. The proposed development as an anaerobic digestion facility is a further such initiative which would support the circular economy and, therefore, is in accordance with the aims and objectives of developing a national bioeconomy campus in this part of the county.

7.1.15. In terms of local policy, I note that the County Development sets out several policies and objectives which also support the development of a low-carbon society, climate action, renewable energy and the bioeconomy. This includes Policies 3-1 (to facilitate renewable energy), 3-2 (to encourage innovative initiatives promoting the circular economy), 10-4 (to ensure the sustainable management of waste) and Objective 10-A (to facilitate new development to produce energy from local renewable sources, such as bioenergy). [See Section 5.1 above which cites the relevant policies and objectives and provides further information in relation to the National Bioeconomy Campus at Lisheen.]

7.1.16. I do not consider it reasonable that the development should be refused permission on the basis that adjoining or nearby land parcels may have the potential to be developed for private dwellings in the future. The lands are not zoned for residential purposes and, therefore, any suggestion that such future uses should outweigh the merits of the current application are unfounded and speculative, in my opinion. As the Commission will be aware, planning decisions must be based on existing planning policy at time of an application or appeal being considered and, in this case, the subject proposal is well-supported by national, regional and local policies and objectives.

7.1.17. In terms of the alternative sites, I note that Chapter 5 of the EIAR sets out a detailed review of the reasonable alternatives considered as part of the project design phase. This includes an appraisal of different site locations, as well as different design, layout and scale of development considerations. I have reviewed the information and consider that it complies with requirements of the EIA Directive (2014/52/EU). In particular, I note Table 5.1 which includes the site specific selection criteria considered as part of this exercise.

7.1.18. The EIAR sets out the various options available, including consideration of the 'do nothing scenario', alternative locations, alternative designs and layouts, and alternative technical configurations. The 'do nothing scenario' would effectively result in a missed opportunity in terms of:

- developing a Brownfield Site which. Otherwise, would have limited value,
- realising and meeting a number of important planning policies and objectives,
- reducing GHG emissions,
- redirecting agricultural manures, slurries, and organic by-products which are currently spread directly onto land, often untreated, contributing to methane emissions and nutrient runoff, and
- delivering economic and social benefits, such as direct and indirect employment and creating indirect economic activity in the local economy.

7.1.19. I note that the Applicant states that they examined other sites located at North Kilkenny ('Site B') and South Kildare ('Site C') as these locations fall within regions that have comparatively high levels of agricultural activity, thus, providing a

dependable local supply of feedstock, such as manure and crop residues. These locations also had strong connectivity to major road networks which would facilitate the efficient transportation of materials to/from the site. The site selection process also comprised a detailed consideration several multifaceted criteria, including land availability, site size, existing land use, availability and proximity to digestate receivers, proximity to sensitive receptors, amongst others. Each site was scored according to these requirements and end result was produced.

7.1.20. Furthermore, and in relation to the issue of a direct gas injection point, I note that the Applicant points out that Site C in Kildare offered closer access to the gas grid. However, it lacked the strategic advantage of feedstock availability and proximity to end-users for the bio-based fertiliser. The EIAR confirms that the appeal site at Lisheen is situated near the M8 Motorway and therefore would benefit from unrivalled connectivity to key transportation routes. This, in turn, would enable the efficient, streamlined distribution of digestate to local farms and nearby customers. This positioning between suppliers and customers would also maximise logistical efficiency, decrease operational costs, and reduce potential environmental impacts associated with transport and longer journeys.

7.1.21. Following the Applicant's analysis, the former Lisheen mine site – and current national bioeconomy campus – was chosen as the favoured location for the facility. This was based on a comprehensive, transparent and evidence-based selection process, in my opinion. I consider that the location is consistent with the requirements of the EIA Directive and that no other candidate site has been shown to be demonstrably preferable.

7.1.22. The chosen location is also supported by a clear plan-led approach in terms of directing these types of uses (i.e., industrial, waste, and renewable energy activities) to a designated Decarbonisation Zone (DZ). The DZ is earmarked to facilitate the expansion of the bioeconomy and renewable energy sectors. I also consider that the rural location of the site, which is near several local and regional farms, is advantageous having regard to the facility's requirement to source feedstock from different nearby suppliers in the general area. I note that feedstocks would be able to be primarily sourced locally, within County Tipperary, and transported to the AD plant from within a 60-minunte travel radius of the site.

7.1.23. In relation to third party concerns that property values may potentially decrease on foot of the proposed development, I consider that such issues are not a material consideration for the assessment of this appeal. There is also no evidence before me to suggest that an appropriately designed and operated AD plant would negatively affect the land values of surrounding property.

7.1.24. Therefore, it is my view that the proposed development represents a positive long-term use of previously developed industrial lands (i.e., a brownfield site) which would support rural economic activity, and supplement farm incomes through feedstock supply, whilst simultaneously contributing to the country's climate and renewable energy objectives.

7.1.25. In summary, and in having regard to the provisions of Tipperary County Development Plan 2022-2028, the physical characteristics of the site, including its brownfield status and setting within the National Bioeconomy Campus at Lisheen, its proximity to the M8 Motorway via Junction 4, and absence of sensitive uses in proximity to the site, I consider that the proposal is appropriate in terms of its location, setting, and receiving context.

7.2. **Amenity Impact**

Odour

7.2.1. Third parties state that the proposed development would negatively affect local air quality due to the industrial nature of the facility and which requires an anaerobic digestion process to breakdown organic matter to produce biogas and digestate. It is stated that odour produced by this activity would be exacerbated by not being properly controlled and contained.

7.2.2. Some appellants go on to say that the mitigation measures put forward as part of the application are not adequate and that this could result in malodour and vermin and flies being attracted to the area, thus, potentially spreading disease. There is a particular concern that this could pose a threat to livestock on farms in the area, including in terms of cattle contracting bovine TB.

7.2.3. The EIAR (Chapter 11) accompanying the application has been prepared with input from a specialist air quality consultant. It concludes that any odour or air quality impacts derived from facility would be minimal and that the worst-case odour

exposure levels would be well within relevant thresholds, thus, having no effect on residential properties. The nearest residential house is 300m from the site boundary, placing it outside the zone of influence for odour and dust dispersion, which is in accordance with industry standards.

7.2.4. I note also that the facility would use fully sealed and enclosed storage systems – including concrete clamps, covered sheds, and sealed bundled tanks – to manage material onsite effectively and safely. The proposed development would not be an uncontrolled waste facility. Rather it is a modern, enclosed anaerobic digestion plant located on a brownfield site, designed to operate within strict regulatory controls. I therefore consider that opportunities for pests to access feedstock or waste would be minimised and unlikely.

7.2.5. The Applicant also notes that regular cleaning and effective site management procedures would prevent waste build-up which might otherwise attract flies or rodents. I consider that active pest control measures, such as insects traps, vermin baiting programs and continual monitoring, typically implemented as part of a Environmental Management Plan would further assist in ensuring high biosecurity standards and prevent nuisance and disease from spreading in the surrounding area. I note that Section 11.6.2 of the EIAR confirms that an odour management plan will be prepared for the operational phase to ensure that all odour control methods applied are sufficient and assessed at regular intervals. The plan will also outline a procedure for addressing any odour complaints. Section 11.6.2 of the EIAR confirms that an Odour Management Plan. The plan would further help to prevent, minimise, and control odour emissions from industrial activities and ensure compliance with environmental regulations.

7.2.6. Lastly, I note that the Applicant has confirmed that the facility has already received Stage 1 Approval from the Department of Agriculture, Food and the Marine (DAFM), thus, confirming its suitability in terms of design, layout and biosecurity measures.

<u>Noise and Light Emissions</u>

7.2.7. I note the concerns raised by the parties regarding potential impacts caused by new lighting fixtures and equipment, particularly at night and during times outside of normal daylight hours. Concerns are also raised in relation to noise, particularly

during the construction phase, and due to heavy vehicles using the local road network and potentially passing by residential properties.

7.2.8. Section 11.8 of the County Development Plan is in relation to 'Noise and Light Emissions'. It states that the Council will consider the impact of noise emissions that may arise from developments through the planning process, and in line with the relevant guidelines and standards for such developments. The CDP recognises the need for artificial lighting as a means to contribute to a safe and secure night-time environment; but that the impacts of light pollution, glare and light spillage and potential impacts on the visual, environmental and residential amenities of surrounding areas should not result in significant disturbance.

7.2.9. I note that the Applicant's EIAR (Chapter 11) set out a series of mitigation measures to reduce noise levels both the construction and operational phases so that the proposal would be in accordance with the relevant industry standards, including the European Communities Environmental Noise Regulations 2018 (S.I. No. 549/2018). I further consider that the facility would be subject to certain noise and lighting limits as per the parameters set out under its IE Licence, including for both day and night periods. The licence would require the facility operator to comply with monitoring and reporting in accordance with the relevant EPA guidance, including the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)'.

7.2.10. In terms of light spill, I note that a series of measures are outlined in the CMP, which would address this concern. The measures include the provision of minimum luminosity / brightness sufficient for safety and security purposes, so as to avoid overshadowing by site hoarding on surrounding footpaths, roads and amenity areas; the installation of motion sensor lighting and low energy fittings, for lighting to be positioned and directed to avoid intruding on adjacent buildings, land uses, and ecological receptors, and to avoid causing distraction to motorists; and for tower crane lighting to be cowled and angled to minimise light spillage to surrounding properties. I consider that the measures would be adequate to reduce light trespass to an acceptable level and that the impact of operational light pollution and glare would be minimised.

7.2.11. I also consider that the issue of lightspill could be addressed by way of condition on any grant of permission issuing, requiring the preparation of a sensitive public lighting design. The design would be required to be in accordance with the relevant Council lighting guidance. However, I would have no significant concerns in this regard given the significant separation distances from the subject lands and the nearest sensitive receptors (as noted previously, the nearest dwelling to the site is c. 300m to the west of the appeal site).

7.3. **Flooding and Drainage**

7.3.1. I consider that the Applicant has addressed the issue of flooding and drainage comprehensively and that it has been demonstrated by the documentation submitted that the proposed development would not increase surface water discharge over that of the existing greenfield rates. I am also satisfied that there would be no significant flood risk posed by the proposed development.

7.3.2. I have reviewed the proposed drainage strategy and note that the system includes flow attenuation and water quality improvement measures which would deliver several environmental and flood mitigation benefits. The proposed SuDS measures include bioretention swales to capture and filter rainwater from roadways and hardstanding areas, thus, improving water quality and reducing runoff flow rates; above-ground detention basins for storage of excess runoff during heavy rainfall events, which would further help to control discharge rates and prevent increased flows downstream; and the provision of a dedicated rainwater harvesting lagoon for reuse in the biomethane production process, thus, eliminating the need for offsite discharge and providing an additional water source for the facility during dry periods.

7.3.3. The SuDS measures are in accordance with Section 3.3 ‘Sustainable Urban Drainage Systems and Nature-Based Solutions’ of the County Development Plan. In this regard, I note that the CDP states that applications for new developments shall include details of how SUDS and water sensitive urban design, including nature-based solutions, have been satisfactorily incorporated into the design of a new scheme. It also states that development proposals will be required to be accompanied by a SuDS assessment which addresses run-off and potential impact on water quality and existing habitats. [In relation to the latter, I note also that the

proposed landscaping strategy promotes natural recolonisation and rewilding of the site by utilising native plant species to enhance local biodiversity.]

7.3.4. I also note that the process and non-process areas have been designed to be completely separate. This is explained clearly in the Engineering Infrastructure Report, which confirms that the surface water strategy for the overall site has been subdivided into two overall catchment areas for attenuation purposes. The first catchment area is designed to take runoff originating from areas not directly related to the biomethane process (i.e., the non-process area runoff), such as roofs and entrance roads. The second will take runoff originating from areas directly linked to the biomethane production process (i.e., process area runoff), which includes the bund, yard areas, and certain internal roads used by process equipment might consist of excess material (see Figure 10-15 of the EIAR for further details). The separation of the catchment areas is a positive design feature, in my opinion, and would allow for the management of surface water in smaller, more localised zones.

7.3.5. Importantly, I note that the facility makes provision for the central bund to contain the primary digester tanks, storage tanks, and other processing equipment. The bund is designed to sit approximately 1.5m below ground level. The bund has capacity to contain 110% of the largest tank volume which would help to ensure containment where an accidental spill or system failure occurs.

7.3.6. I consider that there would be no increase in flood risk due to the proposed development overtopping the field boundary drain to the south of the site, the Cooleeney stream, or any adjoining properties or watercourses in the area. This is supported by the findings of the SSFRA accompanying the application. The SSFRA also concluded that the site is within Flood Zone C as per the OPW Guidelines, which means there is a low risk of flooding (i.e., less than 0.1% Annual Exceedance Probability - AEP). The Planning Authority also did not raise any concerns in relation to the proposed drainage strategy, or potential risk of flooding. I have read and had regard to the SSFRA as part of my assessment of this issue.

7.3.7. I note that one of the third parties refers to the ‘Claisín Stream’ in their submission. However, there is no information available using online mapping, aerial photograph or of that obtained during my site inspection to confirm the status of this waterbody. It is therefore likely, in my opinion, that this is a local name for the Cooleeney

Stream, which is the designated name for the watercourse into which the site is proposed to discharge after works are completed.

7.3.8. In conclusion, I am satisfied that the application has comprehensively addressed the issues relating to drainage, surface runoff and flooding and that appropriate mitigation is proposed, where required.

7.4. Traffic and Transport

7.4.1. A concern is raised that traffic movements associated with the facility should not be permitted to use the Killoran Road as it is not suitable for heavy vehicles and is used by farms in the area. The Killoran Road is to the west of the site and there are a number of one-off dwellings located in this general area.

7.4.2. I note the Applicant's response in this regard which states that the proposed development will be accessed via the existing access road to the site only and will not involve any vehicles using the Killoran Road. This route was previously used by vehicles travelling to and from the former Lisheen mining facility. It is suitable for HGV's and no major road upgrades are required to support the anticipated traffic volumes for either the construction or operational phases of the project.

7.4.3. I note also that the issues pertaining to traffic and transport have been assessed in Chapter 14 of the EIAR and that the application is accompanied by a Construction Traffic Management Plan, Transport Assessment and Mobility Management Plan, the contents of which I have found to be acceptable (see Section 8.5.13 of my report below which addresses the Traffic and Transportation section of the EIAR). I also note that that the Planning Authority raised no objection in terms of traffic and that the Council's District Engineer has examined the application and raised no objection in relation to the site entrance or traffic proposals.

7.4.4. I note from reviewing the information on file, and by my physical inspection of the site, that the subject lands could potentially be accessed via the L3202 to the west (i.e., by the Killoran Road). The L3202 is a narrow, restricted route with limited capacity to take heavy vehicles, including traffic of the nature that would be required to serve the proposed development.

7.4.5. Therefore, should permission be granted, I consider that the access route to and from the development site – both during construction works and the operational

phase – should be required by condition to be from the L3201 only. An exception to this may be agreed in writing with the Planning Authority and only in special circumstances. I note that this is in accordance with the access arrangement proposed by the Applicant.

7.5. Cumulative Effects

7.5.1. Appellants have raised a concern that the Applicant's EIAR has not adequately addressed the potential for cumulative effects arising. They state that the issue is that the proposed facility, together with other existing and permitted developments in the area, including an adjacent healthcare waste treatment and recycling facility and waste transfer station, have not been considered for cumulative assessment purposes.

7.5.2. I note that cumulative assessment requires assessing the impacts of a particular project, which is subject to EIA, cumulatively with the potential for impacts with other projects. The requirement for cumulative assessment is, however, restricted to existing or permitted projects, and does not extend to hypothetical or potential future projects that may, or may not, occur at some future point in time.

7.5.3. I note that the Applicant has prepared a detailed response to this issue. They have prepared a Supplementary Cumulative Effects Assessment (SCEA) to be read in conjunction with the EIAR and EIAR Addendum. The SCEA is included in Appendix A of the Applicant's Appeal Response (dated 27th June 2025). The report confirms that the development recently permitted under Reg. Ref. 2460978 comprises a healthcare waste treatment and recycling facility and a waste transfer station on adjoining lands and includes this in the cumulative effects assessment.

7.5.4. The SCEA provides an overview of each of the relevant environmental topics required under EIA, with a particular focus placed on the surface water, wastewater, water supply and utility services. I confirm I have reviewed the report. I consider that there would be no significant adverse cumulative effects arising, including for when the permitted healthcare waste treatment and recycling facility is considered in combination with the proposed development, as well as other developments in the area. [Refer to Section 8.7 of my report below for further information.]

7.5.5. The subject site, and surrounding lands, are also strategically positioned within the designated area for the national bioeconomy campus. As already referenced in this report, there is clear policy focus on attracting and developing sustainable and circular economy initiatives within this hub. This includes waste treatment, recycling, and energy focussed uses, amongst others.

7.6. Other Issues

Management of Digestate and Landspreading

7.6.1. Third parties have raised concerns over the intention to landspread the digestate / fertiliser generated by the AD process. The concerns are focused on the potential overapplication of fertiliser at other offsite locations where there may be inadequate nutrient absorption in the local area. A further issue raised by appellants is that end-user farms accepting the fertiliser are not specifically identified by the application and, for this reason, it is not possible to assess potential environmental impacts arising.

7.6.2. I note that the digestate generated by the anaerobic digestion plant is not akin to a typical, traditional liquid slurry. It will take the form of biobased fertiliser which is dried, dewatered, and pasteurised making it similar to a compost-based product. This type of fertiliser would not, therefore, carry the same level of risk in terms of runoff, odour or in its ability to leach into the soil and affect underground layers of soil or rock.

7.6.3. I acknowledge that the various farms and land parcels which are likely to receive digestate would be across a wide geographical area. This may potentially involve recipients who are located several kilometres away from the facility. I also note that the farms accepting the digestate will likely vary over time in line with demand. Such activities are not controlled by the planning system and therefore not within the scope of this application, however, and are subject to a different code of governance. In each case, the transfer of the organic fertiliser from the proposed facility to farmers and its subsequent application to agriculture land is subject to the provisions of S.I. No. 113/2022 - European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022, as amended.

7.6.4. The regulations under Article 23(1) require farmers who are importing organic fertilisers to keep a record of this activity. The records kept must specify quantities, type, dates and details of exporters and importers, as the case may be, in a format specified by the DAFM. Therefore, each recipient farm is required to ensure that the digestate is applied to land in a proper manner having regard to digestate nutrient content, soil nutrient content, crop type(s), weather conditions, specified buffer distances from waterbodies, and time of year, in accordance with the provisions of SI 113 of 2022 (as amended). In this regard, the Applicant also points out that a system of Feedstock Acceptance Agreements (FAAs) and quality control is required to be implemented in such circumstances. This is to ensure all inputs and outputs meet the necessary environmental and legal standards.

7.6.5. Furthermore, the Planning Authority has included a condition (4) as part of their NoD to Grant Permission requiring the Applicant to produce an annual report on the operation of the facility. The report must include details on the source of feedstock(s), the final disposal areas of digestate, the volume of raw materials treated pa, the volume of digestate produced pa, and the volume and weight of gas produced pa. I recommend that in the event the Commission is minded to grant permission that a similar worded condition be included. The purpose of this register would be to ensure regulatory compliance, environmental monitoring and good management practice.

7.6.6. In summary, I conclude that subject to the proper implementation of the provisions of S.I. No. 113/2022, the use of digestate on agricultural lands would not lead to the enrichment of waterbodies from agricultural sources, or environmental pollution, and would help to protect and improve water quality, generally.

7.6.7. In terms of storing and managing digestate at the facility, I note that the AD plant includes the provision of a largescale holding tank. The tank is capable of storing 10,000m^3 of solid bio-based fertiliser, which equates to three weeks' worth. The tank is covered and only dry matter which is subject to a dewatering and pasteurisation treatment process will be held in the storage unit.

7.6.8. The storage compound is not therefore uncovered – despite concerns of third parties that this might be the case – meaning there is limited potential for odours to escape into the surrounding atmosphere. Furthermore, I note that with the control measures

proposed as part of the management process for digestate there is no possibility of discharge from the holding tank, or a residual liquid build-up on the site. There is also no intention for the AD plant to store the digestate for long periods of time – the maximum amount of time being three weeks, as noted above.

Employment and Economic Benefits

7.6.9. The proposed development would directly employ four to six fulltime positions once operational. I note that third parties state that this equates to a small economic benefit to the local area only and that job creation and economic value to the local economy would be limited for this reason.

7.6.10. However, I note that additional part-time staff would also be required, including around harvest time and for site maintenance purposes. This includes, for example, landscaping, fencing, painting, cleaning, power washing, among other things, at the premises. Indirect job creation would also be created elsewhere in the locality, and throughout the broader region, including for feedstock supplies and farms who provide the organic matter so that the plant can produce biogas.

7.6.11. In summary, the creation of these jobs due to the proposed development would be important, in my opinion, and this would contribute to the local employment market in this rural part of the country.

Public Consultation

7.6.12. I note the third party contention that the public consultation undertaken by the Applicant, prior to making the planning application, was inadequate. The parties state that the local community, including landowners, did not have an opportunity to properly engage with the process at an early stage.

7.6.13. However, from reading the information on file, I consider that the Applicant has undertaken a thorough consultation process with all stakeholders to the project and has proactively engaged with the local community. The purpose of this has been to provide clear information to interested parties regarding the nature of the proposed facility.

7.6.14. I note that a local community public information event was arranged at Moyne Community Hall on 25th November 2024. The Applicant made efforts to publicise the event using several forms of communication, including circulation of notice through

the Moyne Community social media platform(s), displaying posters in the local shop and publishing notice in the local parish newsletter. The Applicant states in their response that over 50 residents were in attendance, including some of the appellants. None of this is contested by appellants.

7.6.15. In addition to this, I note that the Applicant has engaged with other stakeholders, prior to making the application, including the Planning Authority, the Irish Bioeconomy Foundation, Galmoy Mines Limited, DAFM, the Moyne Group Water Scheme, and various utility providers.

7.6.16. In conclusion, I am satisfied that the Applicant has made a genuine effort to obtain the views of members of the public and, where possible, to facilitate community involvement and participation. I do not consider that third party rights have been somehow discommoded, such that this would warrant permission to be refuse and these efforts, which are beyond the requirements of the application process, have provided further opportunity for parties to engage in the process.

8.0 Environmental Impact Assessment

8.1. EIA Screening

Proposed Development

8.1.1. The proposed development comprises the construction of an anaerobic digestion plant and associated site works. The facility is designed to accept and treat a total of 98,000 tonnes of agricultural manure, sludges and crop-based feedstocks on a yearly basis. The processes involved include the breaking down of organic matter to produce biogas and digestate. The biogas will be used to generate renewable energy and the digestate, fertiliser.

8.1.2. I note that feedstocks will be primarily sourced locally, within County Tipperary, and transported to the facility from within a 60-minunte travel radius from the site. The process will generate bio-based fertiliser to be applied to farmland and agricultural land holdings in the nearby vicinity.

8.1.3. The proposed development is described in further detail in Section 2.0 of this report.

EIA Screening

8.1.4. The relevant classes of development that require Environmental Impact Assessment (EIA) are set out in Parts 1 and 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) ('the Regulations').

8.1.5. The provisions of Part 2 of Schedule 5 of the Regulations require an EIA to be undertaken where it is proposed to carry out the following:

- *Class 11(b) 'Other Projects': Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule.*

8.1.6. As noted above, the proposed development will accept a total of 98,000 tonnes of agricultural manure, sludges and crop-based feedstocks on a yearly basis. It is, therefore, concluded that there is a mandatory requirement to undertake an EIA of the proposed development.

8.2. EIA Structure

8.2.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act 2000 (as amended) and associated Regulations, which incorporate the European Directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

a) consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and

b) includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

8.2.2. Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR. This EIA section of the report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations.

8.2.3. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters. This is having regard to the EIAR and relevant supplementary information as follows:

- population and human health,
- biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- land, soil, water, air and climate,
- material assets, cultural heritage and the landscape,
- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.

8.2.4. The assessment provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Commission's decision, should they agree with the recommendation made. Adequacy of the consultations carried out by the Applicant is also considered below.

8.2.5. I note that the Planning Authority requested further information on 3rd January 2025. The Applicant was requested *inter alia* to update all relevant sections of the EIAR as appropriate. This took the form of an Addendum EIAR and included a revised schedule of proposed mitigation and monitoring measures under Chapter 22.

8.3. Issues Raised in Respect of EIA

8.3.1. The main issues raised in respect of EIA by parties to the appeal are in relation to:

- Consideration of Alternatives — Chapter 5
- Hydrology and Hydrogeology — Chapter 10

- Air Quality and Climate — Chapters 11 + 12
- Traffic and Transportation — Chapter 14
- Landscape and Visual — Chapter 18
- Cumulative Effects — Chapter 21

8.3.2. I note that the concerns raised by third parties, and other submissions, are addressed in the assessment section of my report above (Section 7.0). Therefore, whilst some overlap between sections is inevitable, I would highlight for the Board's attention that specific reference is made under Section 8.0 in relation to issues relevant to environmental impact assessment.

8.4. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

8.4.1. The Applicants EIAR is presented as three volumes:

- Volume 1: EIAR Non-Technical Summary (NTS).[1]
- Volume 2: EIAR (Main Body)
- Volume 3: Appendices

I have assessed below compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended):

8.4.2. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b).
A description of the proposed development site, including its location and setting, is set out in Chapters 3 and 6, respectively.

[1] The NTS is a condensed version of the overall EIAR document. It is laid out in a similar format to the EIAR and includes a description of the Proposed Development, potential impacts and proposed mitigation measures.

These Chapters describe the development and its various component parts (the 'Proposed Development') including a description of the site, proposed construction activities and methodologies, as well as general construction and operational phase characteristics of the project. It provides: - an introduction outlining the site location, site description and Historical Use of the Application Site as primarily a lead and zinc mine (Sections 3.1, 3.2 and 3.3, respectively); - an overview of the Key Operational and Planned Developments (Section 3.4); - a description of the Environmental and Physical Characteristics (Section 3.5). The description is adequate to enable decision making.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).
An assessment of the likely significant direct, indirect, and cumulative effects of the development is carried out for each of the environmental parameters set out in the Regulations. I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).
This information is included and set out in each of the technical chapters of the EIAR and the associated appendices. A full schedule of mitigation measures is set out under Chapter 22 of the EIAR and included in the CMP for the application. The measures relate to both the construction and operational phases of the project.

A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).
Chapter 5 of the EIAR includes a review and assessment for 'the consideration of reasonable alternatives'. It sets out the alternatives considered by Nua Bioenergy (the Applicant) during the design and pre-application phases of the proposed development. It presents a rationale for the final, selected option in terms of design, technology, location, size, and scale, taking into account the environmental impacts of each alternative and aligning with the project objectives. Section 5.4 sets out the project objectives, which seek to align with Ireland's renewable energy, environmental, and agricultural sustainability goals. Section 5.5 refers to the consideration of alternatives. The consideration of alternatives is an effective means of avoiding environmental impacts. As set out in the 'Guidelines on The Information to be Contained in Environmental Impact Assessment Reports' (Environmental Protection Agency, 2022), the presentation and consideration of reasonable alternatives investigated is an important part of the overall EIA process. This section of the EIAR includes information in relation to the 'do nothing' scenario / alternative, alternative locations, alternative designs and layouts and alternative technical configurations with reference to mitigation measures. I have reviewed the methodology employed and consider that it has followed a structured approach, making sure that all reasonable alternatives were assessed with respect to environmental impacts and considerations in the making of the planning application. I am satisfied that the EIAR has provided a comprehensive description of reasonable alternatives and the rationale / main reasons for selecting the option chosen, taking into account the effects of the proposed development on the environment. [See Section 7.1 above.]

Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).
A description of the baseline environment and likely evolution in the absence of the development.
I consider that a detailed description of the baseline environment is included in each of the technical chapters of the EIAR. I am therefore satisfied the information provided is sufficient to enable the assessment of likely effects and decision making.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.
I have reviewed the EIAR in relation to this and note that the forecasting methods and evidence used to identify and assess significant effects are sufficient and clearly set out, as required for the assessment of the relevant environmental topics. Technical difficulties are identified where necessary, and where they arose during the EIA process. I am satisfied that there are no significant deficiencies that prevent decision making.
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.
The risk of flooding is addressed in Chapter 10 of the EIAR (Hydrology and Hydrogeology). The site is within Flood Zone C (i.e., the probability of flooding from rivers is less than 0.1% or 1 in 1000 years) where the probability of fluvial flooding is low. The SSFRA accompanying the application has also determined that there is no risk of flooding. I note that likely significant effects of the proposed development on the environment, arising due to vulnerability to risk of major accidents and/or (natural) disasters have been properly addressed. This is set out and described in Chapter 19 of the EIAR.

A detailed description of the physical characteristics and context of the application site and the surrounding/wider area is set out under Chapter 3 of the EIAR. It reaffirms that the appeal site is roughly 5.5 ha and situated within the former Lisheen Mine Site and is not currently subject to the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015 (COMAH). However, the proposed development is a lower tier site for the purposes of COMAH.

The Applicant's Land Use Planning Assessment (LUPA) examined several major accident scenarios due to damaging levels of thermal radiation (e.g., from pool fires), overpressure (e.g., from vapour cloud explosions) and toxic gas concentrations (e.g., from an uncontrolled toxic gas release) (see report for further details). The LUPA also has identified three risk based contours around the development site. The individual risk contours correspond to the inner, middle and outer zone extents over the proposed development boundary. The assessment confirms that there are no occupied buildings in these areas and I note that the contours do not extend to the Irish Bioeconomy Foundation and Acorn Recycling Building. It was also concluded that the zones do not extend to any sensitive receptors, such as dwellings. The level of offsite risk was stated as being acceptable.

Due to the nature, scale and location of the proposed development there is low potential for the project to cause any natural disasters or major accidents. I note that the EIAR (Chapter 19) assesses the potential risk of a Major Accident or Disaster and provides a baseline scenario of the existing site. It notes that establishments are within a 10km radius of the site; nor is there any within the consultation distance of a Seveso site. Therefore, there are no constraints posed by any existing Seveso establishments. The HAS did not recommend against the proposed development.

Section 19.2 sets out the methodology for preparing Chapter 19 and I note that no difficulties were encountered in completing this section of the EIAR. Section 19.4 describes the likely impacts of the project. Section 19.5 is in relation to mitigation measures and the proposed response(s) to emergencies. Section 19.8 describes indirect and secondary impacts.

Section 19.3.11 states that there is potential for a major accident due to a loss of containment of biogas from pipework due to mechanical failure, a release of

flammable gas from flammable gas cylinders, the ignition of diesel. However, given the small quantities involved, this is not considered likely, and potential for an accidental release of concrete into the soil resulting in a raised pH causing harm to aquatic systems or causing sedimentation on aquatic beds is improbable. Table 19-5 also lists the Major Accident Hazards at the Proposed Development. However, the EIAR concludes that the level of risk to persons offsite is acceptable and there is no risk of a major accident to the environment.

Recommended mitigation measures include developing a Site Major Accident Prevention Policy and an Emergency Response Plan, prior to commencement of operations. Section 19.4.3 of the EIAR also outlines the protocol to be followed in the event of decommissioning of the site, including preparing a Closure, Restoration and Aftercare Management Plan (CRAMP).

In summary, Section 19.7 of the EIAR addresses the potential for residual impacts in terms of risks due to a major accident and notes that no mitigation measures were required as no likely effects were identified. No cumulative effects are anticipated either.

Due to the nature, scale and location of the proposed development there is low potential for the project to cause any natural disasters.

I consider that the information provided in this regard is sufficient and supports the decision making process.

Article 94 (c) A summary of the information in non-technical language.

A non-technical summary of the EIAR has been prepared. (I.e., 'NTS').

I consider that the NTS satisfactorily describes the likely environmental effects of the development.

Article 94 (d) Sources used for the description and the assessments used in the report

A comprehensive list of sources and references used for the description and assessment of environmental effects is included in the EIAR.

Article 94 (e) A list of the experts who contributed to the preparation of the report
The EIAR clearly identifies the various experts and specialists who contributed to the EIAR. Where relevant, the introductory section for each EIAR Chapter sets out the expertise and qualification(s) of an individual and clearly demonstrates the competence of the person(s) who were involved in preparation of the individual chapters. The EIAR project team therefore comprises a multidisciplinary team of experts with extensive experience in the assessment of projects and in their relevant area of expertise. Each chapter of this EIAR has been prepared by a competent expert in the subject matter.

Consultations

8.4.3. The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices. In addition, the applicant has carried out public consultation, including a public meeting with residents and stakeholders prior to making the application.

8.4.4. Chapter 2 of the EIAR ('EIA Process and Methodology') confirms that formal scoping was not carried out for the proposed development. However, informal scoping was carried out at an early stage in preparing the EIAR preparation and in consultation with the Planning Authority during pre-application discussions.

8.4.5. For further context, I note that the Planning Report (dated 31.10.24) includes a section (1.6) entitled 'engagement' which describes consultation undertaken with key stakeholders and that this was a fundamental part of the planning and design process. The Applicant, Nua Bioenergy, confirms that they engaged with several organisations and authorities to ensure comprehensive input and support for the project, including from:

- Tipperary County Council
- Department of Agriculture – Veterinary Section
- Irish Bioeconomy Foundation

- Utility Providers – Gas Networks Ireland and Flogas Enterprise Solutions Limited
- Electricity Utility Provider – ESB Networks, and
- Water Supply – Moyne Group Water Scheme

8.4.6. I confirm that the submissions received from statutory bodies and third parties in relation to the application have been considered in this report.

8.4.7. In conclusion, I am satisfied that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development advance of decision making.

Compliance

8.4.8. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer, including the EIAR Addendum, is sufficient to comply with article 94 of the Planning and Development Regulations, 2001. Matters of detail are considered in my assessment of likely significant effects below.

8.5. Assessment of Likely Significant Effects

8.5.1. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.

8.5.2. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses

the likely direct and indirect significant effects (including Cumulative Effects) of the development on these environmental parameters and the interaction of these. In assessing cumulative effects the EIAR identified other candidate sites considered for the proposed facility.

8.5.3. Each topic section is therefore structured around the following headings:

- Issues raised in the appeal/application.
- Examination of the EIAR.
- Analysis, Evaluation and Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

8.5.4. **Population and Human Health**

Issues Raised

8.5.4.1. Chapter 7 of the EIAR is 'Population and Human Health'. As expected, the likely effects of the proposed development on human health are further addressed under several other headings of the EIAR and, as such, they should also be considered concurrently in reviewing this chapter.

8.5.4.2. The key issues examined in this chapter of the EIAR include population trends, human health, employment and economic activity, land use, residential amenity, community facilities and services, tourism, noise, and health and safety.

8.5.4.3. No significant issues by parties to the appeal were raised in relation to Population and Human Beings. Other matters relating to noise, odour, visual impact, etc., are examined under the relevant headings of the EIAR, as relevant.

Examination of the EIAR

<u>Context</u>

8.5.4.4. The EIAR describes the methodology used to characterise the environment in relation to population and human beings, economic activity, employment, community infrastructure, emergency services, tourism, and recreation amenities. There are no known notable human health or safety risks associated with the site.

<u>Baseline</u>

8.5.4.5. The study area for the population and human health assessment comprises the electoral division of Moyne and the small area (ref: 217133001) identified within the 2022 Census. These areas are considered most likely to be potentially affected by the proposed facility through impacts on health determinants and community resources.

8.5.4.6. The EIAR describes the baseline scenario for population and settlement patterns (Section 7.3.2), socioeconomics (Section 7.3.3), employment (Section 7.3.4), community (Section 7.3.5) human health (off-site receptors) (Section 7.3.6) and human health (onsite receptors) (Section 7.3.7).

Potential Effects

The likely significant effects of the Proposed Development, as identified in the EIAR, are summarised in Table PHH1 below.

Table PHH1: Summary of Potential Effects

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Do Nothing	• Under the 'Do Nothing' scenario there would be no change to the current land use of the proposed development. There would be no additional impact on the following receptors: - Local Population and Employment: The failure of the proposed development to proceed will not lead to any profound or irreversible consequences. However, the opportunity to deliver additional employment opportunities into the rural economy will be lost. - Community: It is likely that the perceptions of the community would remain unchanged. - Land Use: The failure of the proposed development to proceed will most likely see the land remaining as vacant brownfield land.

	- Human Health (Off-Site): The unique opportunity of providing renewable energy to the national grid will be missed. - Human Health (On-Site): The risks associated with uncontrolled pests and vermin on the surrounding the area, livestock and ecological receptors will be reduced.
Construction	- Population: The construction phase will not have any significant effect on the population of the surrounding area, as it is expected that the workforce will primarily travel from their existing place of residence to the construction site, rather than reside in the area during the construction phase of the development. - Employment: The proposed development will provide important construction and related employment. The construction phase will also have secondary and indirect 'spin-off' effects on ancillary support services in the area, including in relation to retail services, the aggregate extraction (quarry) sector, building supply services, professional and technical professions, etc. - Community: The construction phase may have some short-term negative effects on local residents. Such effects are likely to be associated with construction traffic and noise associated with construction requirements. These effects are dealt with separately and assessed in Chapter 11 Air Quality (including Odour), Chapter 12: Climate, Chapter 13: Noise and Vibration, Chapter 14: Traffic and Transportation and Chapter 15: Waste of the EIAR. Such effects include an increase in daytime noise levels as a result of machinery being used for construction and also by construction traffic. Activities associated with the

	construction phase are anticipated to have negative, slight, temporary effects on the local community. - Human Health (On and Off-Site): The construction methods and the hours of work will be designed to minimise potential effects. The proposed development will comply with all health and safety regulations and designed and constructed to best industry standards. Activities associated with the construction phase are anticipated to have negative, slight, temporary effects on the local community.
Operational	- Population: No likely significant effects on the existing population. No residential element is proposed, hence, no effects on the local population in this regard. There will no significant increase in traffic levels on the R502 (as outlined within the Traffic and Transport Assessment). - There will also be no notable increase in demand for community/recreational facilities as the new facility will not introduce a new resident population to the area. Overall, the proposed development is likely to have a positive effect on the population in terms of employment and economic benefit in the long term. Activities associated with the operational phase are anticipated to be positive, moderate and long-term. - Employment: Generation of direct employment while also supporting existing employment on surrounding farms. Further indirect employment will be created, such as surrounding businesses catering for employee subsistence and hauliers transporting feedstock materials to the proposed development. The proposed development will support c. 4 fulltime roles along with part time staff. Additional part time staff will be

	required around harvest time and for site maintenance (landscaping, fencing, painting, power washing, etc.). Activities associated with the operational phase are anticipated to be positive, significant, long-term. - Community: The changes to the physical environment may affect the spatial perceptions of the community living in the area. These aspects are dealt with in further detail within the Chapter 18: Landscape and Visual Impact chapter of this EIAR. Activities associated with the operational phase are anticipated to neutral, slight, long- term - Human Health (On and Off-Site): The main risks are in relation to the presence of vermin or pests in or around the waste management facility; fugitive emissions of biogas and feedstocks escaping from the production facility; the potential presence of substances that could be toxic, corrosive, sensitising, or carcinogenic such as processing aids, oils, effluent, wastes and gases; the presence of biological agents; electrical infrastructure onsite has the potential to be hazardous such as CHP units, pumps, agitators, measuring devices; moving mechanical parts may pose hazards such as falling, impact, crushing, cutting; gas hazards; explosion and fire hazards; malpractice due to bad work practices; and major accidents. I note that potential operational phase effects in the absence of mitigation are summarised in table 7.11 of the EIAR.
Decommissioning	• The EIAR Addendum states that once the proposed development comes to the end of its operational life (30 years after operations commence) it will be

	decommissioned. It is anticipated that the decommissioning process will involve similar activities to the construction process. However, it will be undertaken in reverse with the removal of above ground structures first, and structures within the bund, second. • Potential decommissioning effects are considered in detail in Table 7.12 of the EIAR Addendum. Activities associated with the decommissioning phase are anticipated to be negative, slight and temporary.
Cumulative	Hydrology and Hydrogeology: The project has the potential to create impacts on surface water run-off during construction as a result of increased levels of silt or other pollutants as well as potential pollution from spillages, wheel washing and water from trucks onsite. Air Quality and Climate: Air dispersion modelling shows that projected ambient concentrations, including background levels, fall within all National and EU ambient air quality limit values and, thus, will have no effect on human health. The predicted levels show that additional mitigation, other than the proposed Odour Treatment System, is not required (see Chapter 11). Noise and Vibration: Mainly potential nuisance and disturbance due to loud construction activities, plant and equipment, and construction traffic noise. During the operational phase there is no potential for significant nuisance and potential disturbances. Traffic and Transportation: Mainly due to additional (construction) traffic on the local / regional road network and the potential for nuisance and disturbance due to construction traffic noise. Mitigation measures include warning signage and designated haul route(s) for HGVs meaning the predicted impacts will be negative, and not significant, over the short term. The amount of operational traffic that would be generated is not

	considered significant and equates to between 44 and 54 no. trips two-way trips per month. Landscape and Visual: Mainly due to construction activities (e.g. dust, dirt, stockpiling of soils, removal of vegetation, etc.). The predicted impact will be slight to moderate, negative and short-term. Material Assets - Waste: Mainly if waste is not managed correctly in accordance with the RWMP or the OWMP, which could result in fly-tipping, littering and reduced recycling, thus, attracting vermin and pests. Material Assets – Utilities: In worst-case scenarios (e.g. where works are not carried out safely or in accordance with the applicable codes and standards), accidents during works (e.g. contact with live powerline or gas explosions) or water quality impacts which have the potential to result in human health issues. Mitigation measures will ensure that the impact of the proposed development complies with all the specifications and guidelines of the relevant service providers. Major Accidents and Disasters: There are no expected impacts from a major accidents and disasters perspective, thus, there are no significant cumulative effects with the proposed development from a major accidents and disasters perspective. Table 7.13 of the EIAR sets out a summary of the screened-in projects in combination with the proposed development for the purposes of potential cumulative impacts.

Mitigation

8.5.4.7. The EIAR sets out mitigation measures in respect of the environmental topics considered. This includes, for example, measures and procedures to control and manage traffic (both construction and operational related), to prevent and reduce emissions to air and control odour, to avoid pollution of groundwater and minimise

risks to health and safety. The mitigation measures are examined in greater detail in the respective chapters of the EIAR. The measures referred include typical construction and operational practice which adhere to standard industry guidelines / requirements and others which are adapted to the specifics of the proposed development.

8.5.4.8. I note that mitigation measures proposed in the chapters relating to Hydrology and Hydrogeology (10), Air Quality (11), Noise and Vibration (13) and Traffic and Transportation (14) and Landscape and Visual (18), in particular, would help to avoid or minimise adverse effects on population and human health effects. The mitigation is embedded within the residual assessments on which the population and human health assessment has been predicated.

8.5.4.9. The mitigation measures for population and human beings are outlined in Section 5.6 of the EIAR, which is entitled 'Likely Significant Impacts and Associated Mitigation Measures'.

Residual Effects

8.5.4.10. The residual risk will range depending on the type of impact. However, most residual effects would be short-term, imperceptible, and negative.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.4.11. I have reviewed and assessed Chapter 7 of the EIAR and the associated documentation. I am satisfied that the material presented and methodology for the assessment of likely effects is adequate, along with the submissions from third parties, and my inspection of the site, and that this allows for an assessment of the likely significant effects of the proposed development on population and human health.

8.5.4.12. The subject lands comprise a 5.5ha brownfield site within the former Lisheen mining complex at Killoran, Moyne, Thurles, Co. Tipperary. It is primarily adjoined by other lands associated with the former mine to the north, south, and east, and by agricultural lands to the west (see Site Location Map and Site Layout Plan accompanying the application). I note that since rehabilitation and levelling the site has remained mostly vacant. It is currently characterised by recolonised scrub and ground vegetation. There is a mature hedgerow along its western boundary. Since

the closure of the mine, the site has undergone redevelopment as the 'National Bioeconomy Campus'. The campus has a focus on developing sustainable and circular economy initiatives.

8.5.4.13. The campus includes several industrial and renewable energy activities, such as the Lisheen Wind Farm. The site is already well-connected in terms of pre-existing roads access, including due to its proximity to the M8 Motorway and regional roads network. It is also located away from any major settlements and populated areas being in a rural area. it is, however, relatively close to a number of identified feedstock suppliers and digestate users.

8.5.4.14. I consider that the overall proposed development, as a significant infrastructure and renewable energy project, would bring short-term, positive effects to the local population by way of direct and indirect effects on the local jobs market, investment in the economy, particularly the trades and retail sectors, and increased expenditure in the local community through the purchase of goods and services.

8.5.4.15. I acknowledge that during the construction phase, there is a probability of adverse effects stemming from construction works, including generation of dust, noise, vehicular emissions, and an increase in traffic on the local roads' network. However, such effects would short-term and can be managed through various mitigation measures and established protocols, including those which are set out in the Traffic Management Plan and CMP accompanying the application.

8.5.4.16. In terms of the decommissioning stage, I note that the Applicant provided a detailed Decommissioning Plan (see Volume 3, Appendix 6.1 of the EIAR Addendum) outlining the approach to shutting down the facility. The Plan sets out a series of measures to militate against potential environmental impacts during this stage of the project. The decommissioning phase is expected to occur in approximately 30 years' time, when environmental standards, regulatory requirements, and best practice may evolve significantly. For this reason, and as stated by the Applicant, the plan is designed to be a live document, which will be reviewed, updated, and finalised by the appointed contractor prior to decommissioning, which I consider to be acceptable, having regard to the other information contained in the Plan regarding the identified key objectives for closing the plant, the proposed phasing approach, and overall environmental management strategy proposed.

8.5.4.17. Having regard to the conclusions in the other sections of my report, I am satisfied that subject to the implementation of mitigation measures, no significant adverse effects would arise on population and human health during the operational stage of the project, including in relation to air and climate, noise, traffic and transport, and landscape and visual. However, regarding landscape and visual, I consider that properties in the vicinity of the subject lands would experience some level of change as certain elements of the overall project would be very visible given proposed premises would cover an expansive physical area.

8.5.4.18. It is therefore possible that people living nearby could experience a moderate negative effect in the long-term in terms of amenity impacts. However, I would note that the County Development Plan identifies Thurles and its environs as a driver of the bioeconomy both for Tipperary and Ireland and that the site is one of six designated locations in the EU for leading the next generation of the bioeconomy. The development of the bioeconomy campus at this location is therefore plan-led and in accordance with the aims and objectives of local planning policy. [The issue of visual and landscape is discussed in further detail in EIAR Chapter 18].

8.5.4.19. Subject to meeting the relevant health and safety legislation, and other protocols outside of the planning code, and in accordance with the proposed mitigation measures set out in the EIAR. I consider the risk of major accidents or disasters as low in this case, including in relation to flooding and fire. [The risk of flooding is further addressed in Chapter 10 of the EIAR and EIAR Addendum.]

Conclusion: Direct and Indirect Effects

8.5.4.20. In summary, I have considered this chapter and other submissions in relation to 'population and human health'. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the Proposed Development and through suitable site conditions.

8.5.4.21. I am therefore satisfied that the Proposed Development would not have any unacceptable direct, indirect or cumulative effects on 'population and human health'.

8.5.5. **Biodiversity**

Issues Raised

8.5.5.1. Chapter 8 of the EIAR is 'Biodiversity'. It assesses the likely significant effects, both alone and cumulatively with other plans and projects, that the proposed development may potentially have on biodiversity and flora and fauna. It sets out the mitigation measures proposed to avoid, reduce or offset any potential significant effects that have been identified.

8.5.5.2. The Chapters aims to:

- Establish and evaluate the ecological baseline environment.
- Identify, describe, and assess the potentially significant ecological effects associated with the proposed development.
- Outline the mitigation measures required to address any potentially significant ecological effects and ensure compliance with the relevant nature conservation legislation.
- Provide an assessment of the significance of any residual ecological effects.
- Identify appropriate compensation, enhancement, or post-construction monitoring requirements, where applicable.

The potential impacts on European sites are addressed in the Appropriate Assessment section of this report. No significant issues were raised by parties to the appeal in relation to biodiversity.

Examination of the EIAR

Context

8.5.5.3. A detailed description of the physical characteristics and context of the application site and the surrounding/wider area is set out under Chapter 3 of the EIAR. The appeal site is roughly 5.5 ha and situated within the former Lisheen Mine Site. The former mine was in service for approximately 20 years but closed in 2015.

8.5.5.4. The site is characterised by recolonised scrub and ground vegetation. There is a mature hedgerow running along the western boundary of the site. as previously

noted, since the closure of the mine, the site has undergone redevelopment as the National Bioeconomy Campus.

Baseline

8.5.5.5. The study area is defined by the Zone of Influence (ZoI) for the proposed development in relation to the ecological receptors that could be affected. The ZoI, or the buffer distance for which potentially significant effects could occur differs across the Key Ecological Receptors (KERs). The results of a desk study and ecological field surveys (undertaken on the 4th, 9th and 13th September 2024) have identified the habitats and species present both within and around the subject lands.

8.5.5.6. I note that there are no Natura 2000 sites within, or directly adjacent, the subject site. The EIAR confirms that there are five SACs and no SPAs within c. 15km of the subject lands. The closest European site to the appeal site is Galmoy Fen SAC (Site code: 001858). It is situated c. 9.8km to the northeast of the site at its nearest point. I note that Figure 8.2 of the EIAR incudes out a map of the various European Sites in proximity to the site.

8.5.5.7. The EIAR Addendum confirms that the application site (redline boundary) extends via a narrow strip of land to the Cooleeny Stream. This is to enable a new surface water discharge point for surface water runoff. The Applicant states that prior to construction, a headwall will be installed at this interaction point to anchor the drainage pipe and prevent bank erosion.

8.5.5.8. Section 8.4.3 of the EIAR ('Habitats') confirms that a total of five macro habitats were identified within the study area. These range from low to high ecological value. The habitats include scrub (WS1), recolonising bare ground (ED3), buildings and artificial surfaces (BL3), depositing lowland rivers (FW2), and hedgerows (WL1). Recolonising bare ground (Fossitt habitat code: ED3) is the most prominent habitat. Table 8.6 of the EIAR sets out the ecological value for each habitat within the study area.

8.5.5.9. Section 8.4.4 of the EIAR (Flora) states that there are no threatened flora species in the study area. No rare plant species were recorded as part of the site surveys, nor are any expected to occur as the habitats within the study area are common and highly modified. No invasive plant species were identified on the site.

8.5.5.10. Section 8.4.5 of the EIAR (Fauna) confirms that the site is close to areas of mature treelines and woodland, habitats that are known to support several species (see Table 8.8 of the EIAR for full list of protected non-volant mammal species recorded in 10km of the site). No signs of badger or badger setts were recorded during the surveys. A review of existing records within a 10km radius of the study area showed that otter has not been recorded previously; neither were any signs of otter recorded during the site visits, and the subject lands do not contain habitats suitable for otter. It is unlikely that Irish Hare occurs regularly within the site, but that they may commute through the site sporadically. Red Squirrel is also considered unlikely. The habitats found on the site are used by Pygmy Shrew, Hedgehog, Rabbit and Fox.

8.5.5.11. No nesting birds or roosting bats were recorded during the survey work. The site also offers low value opportunities for nesting, roosting and foraging. Bat activity levels were low onsite during the survey work. The only bats were recorded were outside the site boundaries and at the hedgerows to the northwest of the site. Species diversity was also low, with two common and widespread at species recorded, being Common Pipistrelle and Leisler's Bat.

Potential Effects

8.5.5.12. The likely significant effects of the proposed development, as identified in the EIAR, are summarised in Table B1 below.

Table B1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• If the proposed development were not to proceed, no changes would be made to the current land use(s). The subject lands would continue to be managed under the existing farming and agricultural practices. • The existing habitats would remain largely unchanged, with no immediate significant changes to the area's terrestrial and aquatic biodiversity (flora and fauna), as no construction activities would take place.
Construction	Designated Sites: There are no European Designated Sites (Natura 2000 sites) located within or immediately adjacent the

	appeal site. There is also no source-pathway connectivity between the site and any Natura 2000 Site. The accompanying AA Screening and NIS conclude that given the application of prescribed protective measures for the avoidance of impacts and the implementation of the required mitigation measures, the proposed works will not give rise to adverse effects on the integrity of any European Sites. Habitats and Flora: Habitats will be disturbed and lost under the proposed development footprint. However, these primarily consist of hedgerows, scrub and built land, which are habitats of low botanical diversity, low biodiversity value, and low ecosystem functionality. Hedgerows outside the site boundary will be avoided and remain intact. Fauna: Localised earthworks and excavation will occur predominantly on recolonising bare ground, scrub, and built land, which are habitats of low botanical value and of little ecological importance for local fauna. The scrub, hedgerow and tree habitats near the site may support small mammal species such the pygmy shrew and hedgehog. However, given the relatively low number of each species, and as they are a highly mobile species, construction at the site is unlikely to result in injury or mortality that would affect the species' conservation status. The works may cause short-term displacement of mammal species due to increased human presence, noise, and vibration. No protected terrestrial mammals were recorded on site. The construction phase will be carried out in accordance with submitted CMP. The CMP will be adhered to for the duration of works and implement mitigation measures to reduce potential impacts on local biodiversity.

	Overall, the impact on local non-volant mammals is predicted to be negative, not significant, and long-term. Water Quality: There may be an increased risk of silt discharging from the site during works. Construction activities have the potential to impact surface water(s). Such impacts include the risk of pollution from fuel spillages, oil leakages, release of particulate matter, and other accidents with potential to lead to contamination of surface water and the degradation of water quality, consequently impacting the habitats and species present in any affected waterbody. The stripping of vegetation, ground disturbance and storage of stripped soils and aggregates near watercourses or drainage channels also increases the risk of materials being washed into watercourses.
Operational	• The primary impacts are on water quality via wastewater/foul effluent discharge and surface water run-off. • The site is proposed to be drained to an above-ground storage lagoon in the western corner of the site. • During the operation, noise and disturbance are likely to increase. However, given the absence of significant habitats suitable for protected species no significant disturbance is expected. • Higher light levels can delay emergence from bat roosts and restrict bat foraging and commuting activity to darker areas. • it is anticipated that birds will acclimatise to human presence as the site is in an environment already subject to high levels of human activity, and the bird species recorded are generally common and widespread.

	• High levels of silt in surface water run-off could occur in the absence of appropriate design and mitigation measures. • The proposed development is also not predicted to result in a significant negative impact on local bat populations during operation at any geographic scale.
Decommissioning	• The EIAR Addendum states that once the proposed development comes to the end of its operational life (30 years after operations commence) it will be decommissioned. It is anticipated that the process will involve similar activities to the construction process. However, it will be undertaken in reverse with the removal of above ground structures first, and structures within the bund, second. • Temporary effects include noise and vibration from demolition, dust from backfilling and vehicle movements, traffic disturbances from HGVs, soil disturbance during drainage removal and levelling. Furthermore, soil disturbance risks collapsing shallow burrows and handling potentially contaminated digestate poses a localised pollution risk to foraging areas. • These short-term, localised impacts would be confined to the 2km ZoI only.
Cumulative	• During the construction phase, there is potential for negative cumulative impacts to hydrologically connected waterbodies. These potential impacts include the accumulation of excess sediment and the mobilisation of contaminants from multiple source projects. • During operation, a localised increase in traffic and noise is predicted. However, given its setting in an active industrial area, the proposed development is not

	predicted to significantly increase long term noise and disturbance levels. Therefore, no significant cumulative impacts have been identified.

Mitigation

8.5.5.13. The EIAR sets out a comprehensive range of mitigation and monitoring measures in relation to biodiversity. Section 8.6 of the EIAR assesses the potential effects of the project to make certain potential effects on Key Ecological Receptors (KERs) have been adequately addressed. Table 8.14 summarises the predicted impacts on habitats having regard to habitat types, which are scrub (WS1), recolonising bare ground (ED3), buildings and artificial surfaces (BL3), depositing lowland rivers (FW2), and hedgerows (WL1).

8.5.5.14. Where significant effects on KERs are predicted, I note that mitigation has been incorporated into the project design, layout and/or other onsite arrangements to address such impacts. The mitigation measures seek to avoid, reduce or offset potential significant residual effects.

8.5.5.15. The mitigation measures, in my opinion, are detailed and thorough and have been designed with the clear intention of addressing loss of habitat, disturbance to species, the loss of trees and hedgerows, impacts on fauna, including bats, badgers, otters, and other local non-volant mammals, and to ensure the protection of water quality, including groundwater. The measures are clearly set out in Section 8.7 of the EIAR ('Collated Mitigation Measures').

8.5.5.16. The proposed development is not anticipated to result in significant effects on surface water quality, groundwater quality or aquatic faunal species and habitats during the construction or operational phases. I note also that any potential pathway for contamination or pollutants leaving the site has been blocked through design and mitigation.

8.5.5.17. The facility would not result in any significant effects on any European designated sites, including Galmoy Fen SAC (Site Code: 001858). I note that the Lower River Suir SAC (002137) is the only site with a potential ecological connection to the appeal site. This is via the Cooleeny Stream. The waterbody crosses a small

section of land within the red line boundary of the site for which is required to facilitate a surface water discharge point. In this regard, I note that a Natura Impact Assessment (NIS) has been prepared, however. See Section 9.0 below.

8.5.5.18. Some of the main mitigation measures[2] and procedures proposed include:

Construction Phase

- Silt fencing / bunding will be installed around stockpiles to ensure no soils and sediments are washed out overland to the existing surface water networks or directly into the Cooleeny Stream.
- Attenuation of surface water runoff using above-ground basins/lagoons to reduce the impact of surface water discharge on downstream networks and rivers.
- Fuel storage areas and refuelling points will be bunded and located away from surface water drainage and features. The bunds will comply with the EPA Guidelines.
- Avoidance of instream works and associated indirect effects, such as siltation.
- Site lighting has been designed to minimise light pollution and potential disturbance to wildlife.
- Water suppression to help control dust.
- Drop heights from conveyors, loading shovels, hoppers and other loading equipment shall be minimised.
- Hard surface roads will be swept to remove mud and aggregate materials.
- Avoid unnecessary revving of engines and switch off equipment when not in use.
- Fuels stored on-site will be minimised.
- Small plant will be positioned as far as practicable from the relevant watercourses.

[2] The mitigation measures listed for both the Construction and Operational Phases of each environmental topic / EIAR Chapter are not exhaustive. A full range of the measures and procedures proposed are set out in the EIAR and have been considered in the assessment of the overall project.

Operational Phase

- Waste will be segregated appropriately and collected by a qualified waste contractor for disposal or recycling.
- Lighting will be carefully managed to prevent any adverse impacts on local wildlife, in particular bats.
- SuDS components will channel excess runoff into a dedicated surface water collection network.
- Runoff will be released at a controlled Qbar rate, with temporary storage for excess volumes provided in an above-ground basin to manage flow and prevent flooding.
- Surface water will be managed without infiltration to the ground in line with GDSDS (Greater Dublin Strategic Drainage Study) standards.
- A bund system will ensure contaminated water is prevented from discharging into the surface water drainage network
- The only wastewater generated on-site is from the office building. This wastewater will be directed to a domestic pump station where it will be pumped via a fully enclosed rising main to the primary digester within the bund for integration into the biomethane production process.

Residual Effects

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.5.19. With the implementation of the prescribed mitigation measures, no significant negative effects are predicted to occur, including in relation to habitat loss, disturbance, or any European Site.

8.5.5.20. The proposed development would primarily affect low-value and highly modified habitats only. There would be a net loss of a small number of non-native trees and no impact on aquatic habitats. It is anticipated that over time bats will utilise the newly provided roosting habitat. Bird boxes will be made available for barn owls and swifts. The spread of invasive species will be controlled, and any impact on air quality will be negligible.

8.5.5.21. I note that provided that the mitigation measures as set out in Section 8.7 of the EIAR are implemented and remain effective, the potential for significant residual impacts in terms of disturbance or displacement of fauna and loss / alteration of habitats identified as Key Ecological Receptors (KERs) is not anticipated.

Conclusion: Direct and Indirect Effects

8.5.5.22. In summary, I have considered this chapter and other submissions in relation to biodiversity. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the Proposed Development and through suitable site conditions. I am therefore satisfied that there not be any unacceptable direct, indirect or cumulative effects on biodiversity.

8.5.6. Land, Soils and Geology

Issues Raised

8.5.6.1. Chapter 9 of the EIAR is 'Land, Soils and Geology'. It describes the appropriate mitigation measures to limit any potential significant impacts to soils and geology. It also outlines the methodology used and the assessment criteria for identifying any residual impacts and significance of effects.

8.5.6.2. No significant issues were raised by parties to the appeal in relation to land, soils and geology. However, an appellant did question whether the application had adequately explained how liquid digestate would be disposed of as a byproduct and stored onsite.

Examination of the EIAR

Context

8.5.6.3. A desktop study, site investigations, and walkover survey(s) were undertaken as part of assessing this environmental topic. The site walkover survey was undertaken to establish the environmental baseline conditions of the site in relation to land, soils and geology.

Baseline

8.5.6.4. The EIAR provides a baseline assessment in terms of land, soils, and geology, and discusses the potential impacts that the construction and operation of the proposed development might have. The EIAR confirms the information has been gathered

from a desk study, visual inspection and site investigations, an estimation of the importance of the soil and geological environment within the study area having regard to the criteria set out in Table 9-1 of the EIAR ('Criteria for Rating Site Importance of Geological Features'). I note that Figures 9-4, 9-5 and 9-6 are in relation to soil composition, quaternary geology, and bedrock geology, respectively.

Soils and Subsoils

8.5.6.5. The soils beneath the site are deep, well-drained mineral soils (mainly basic) and classified as Grey Brown Podzolic and Brown Earths with a medium to high base status. There is also a narrow band of soils beneath the eastern boundary of the site which are mineral alluvium. Another narrow strip of soils along the southern boundary of the site is classified as surface water gleys and ground water gleys,

Bedrock Geology

8.5.6.6. The bedrock beneath the site is described as dolomitised massive fine-grained limestone. A fault is identified beneath the southwest portion of the site. The historic Lisheen Mine site and surrounding area is situated within a complex geological setting characterised by significant faulting.

8.5.6.7. The depth to bedrock varies between 3 to 8m below the surface. There is a presence of zinc and lead mineralisation, and this was the past primary focus of mining operations at Lisheen Mine.

8.5.6.8. There are no bedrock outcrops within the site. However, there are a number of bedrock outcrops mapped by the GSI (GSI, 2024) within a 2km radius. The closest are roughly 1.7km north, 1.7km south and 1.75km southeast of the site. There are no karst features at the site or within a 2km radius of the site.

Geological heritage and designated sites

8.5.6.9. The site is mapped by the GSI (GSI, 2024) as within the Lisheen Mine geological heritage site (Site Code: TY044). It is described as a former mine site, but is now the location of the National Bioeconomy Campus.

Soil Contamination

8.5.6.10. The site comprises areas of localised made ground associated with the former mining use on the site. Soil sampling was undertaken which states that soil and soil leachate analysis results were classified as non-hazardous. I note that 13 No. of the

18 No. samples meet the Waste Acceptance Criteria (WAC) for inert landfills and 11 No. of the 18 No. samples meet the WAC for soil recovery facilities. The reuse of soils is subject an assessment for suitability of use. There is no requirement as part of the proposal to remove excavated soils from the site, however.

Economic Geology

8.5.6.11. The lands beneath the site are mapped as having no mapped granular aggregate potential. The bedrock beneath the site has 'very low' potential for crushed rock aggregate.

8.5.6.12. There are no historical pits or quarries mapped at the site or within a 2 km radius. However, as previously noted, the site is located within the former Lisheen Mine, which produced approximately 22.4 million tonnes of ore. Aggregate materials were extracted from a permitted borrow area within the wider Lisheen Mine site (Reg. Ref. 14600480) for the purpose of restoring the mine. The permission allowed for the re-opening of the borrow area, which was previously permitted under Reg. Ref. PLC/17663.

Potential Effects

Table LSG1: Summary of Potential Effects

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Do Nothing	• If the proposed development were not to proceed, no changes would be made to the current land use(s). The subject lands would continue to be managed under the existing farming and agricultural practices.
Construction	Excavation of Soil and Subsoil: Will require the excavation of 26,800 of soil and subsoil to depths of up to 4.0 mbGL. These soils will be retained onsite and incorporated into the landscape design for the project. There will be a 'neutral', 'imperceptible' and 'permanent' effect on soil and geology at the site. It is anticipated that there will be no requirement for the excavation of bedrock during the construction phase.

	Soil Structure: Will result in the exposure of materials to weathering and construction traffic. The temporary stockpiling of soils on the site will be avoided and soils will be infilled in a controlled manner taking account of the geological conditions. Soil Quality and Contamination: The reuse of soils onsite will be subject to an assessment of their suitability for use. Given that there is no requirement to remove excavated soils from the site, except for potentially unsuitable material, it is considered that there would be a 'positive', 'slight', and 'permanent' effect on the quality of soils underlying the site. There is a potential risk with the use of cementitious materials during construction of subsurface structures (such as foundations) on the underlying soil and geology. Dust Generation: Potential windblown dust generation from the temporary stockpiling of materials onsite. There will be some exhaust emissions generated from use of excavators, HGVs (heavy goods vehicles) and vibrating rollers. Importation of Fill Materials: Potential effects may include loss of attribute and changes in the geological regime. Geological Hazards: All aggregates imported will be subject to strict quality control procedures. However, the site is identified as being in a High Radon Area. The design and specification for buildings will be in accordance with Building Regulations and, therefore, any potential issues associated with radon will be addressed and avoided.
Operational	• There is limited / no potential for any direct effect on the receiving land, soil and geology environment taking account of the operational design of the project. • With the exception of rainfall on undeveloped grassland areas of the site, there will be no discharges to ground.

	• The potential accidental release of hazardous materials, including fuels, oils, or chemicals used on-site, could impact the receiving land, soil, and geological environment. However, such an event would likely occur only where there is failure of the primary and secondary containment measures, or a major incident. • The use of digestate will have a positive effect on the receiving lands given the improved recycling of nutrients and reduction of organic pollution / microbial contamination associated with untreated organic waste sources.
Decommissioning	• All infill materials imported to the site will be known sources which have been previously inspected and in accordance with all relevant statutory consents. • Other effects could include changes in the geological regime. • The import of topsoil that may otherwise be diverted to landfill with loss of soil and stone resources would result in an overall 'positive', 'slight to moderate' and 'long term' impact by preventing loss of soil and geological resource to landfill and using this material for restoration purposes.
Cumulative	• Excavation and removal of soil and subsoil across projects. • Import of aggregates and materials across projects. • However, contract and procurement procedures will ensure that all aggregates and fill material originating from quarry sources are sourced from authorised suppliers in accordance with the necessary statutory consents.

Mitigation

8.5.6.13. The EIAR and Addendum EIAR includes a comprehensive and extensive range of mitigation and monitoring measures in relation to land, soils and geology.

8.5.6.14. This Chapter (9) assesses the potential effects of the project to ensure that appropriate mitigation measures will limit any potentially significant impacts in relation to this environmental topic. Where significant effects on land, soils and geology are predicted, mitigation has been incorporated into the project. The mitigation measures seek to avoid, reduce or offset potential significant residual effects.

8.5.6.15. I consider the mitigation measures and related procedures to be detailed and thorough and note that they have been designed to address specific potential impacts on various receptors, including land, topsoil, bedrock, subsoil, geology and associated designated areas. The measures are clearly set out Section 9.7 of the EIAR. Some of the main mitigation measures and procedures proposed include:

Construction Phase

- Additional wetting at the point of dust release, dampening down during dry weather, and wheel cleaning for any vehicles leaving the site.
- Soil and subsoil materials reused by the project (e.g., for landscaping onsite) will be subject to an assessment of suitability.
- Dedicated internal haul routes will be established and maintained to prevent tracking over unprotected soils, for example:
    - length of haul routes on the site shall be minimised,
    - contour of the natural ground shall be followed as much as possible,
    - haul routes to be constructed using permeable material, laid on geotextile, and
    - haul routes shall be at least 10m from a watercourse.
- Where required, surplus materials or materials not suitable for reuse will require removal offsite in accordance with the procedures outlined in the CMP (DOBA, 2024) and all statutory legislation.

- Safe and careful management / control of stockpiles.
- All ready-mixed concrete will be delivered by truck.
- Concrete batching will take place offsite, wash down and wash out of concrete trucks will take place into a container within a controlled bunded area and then emptied into a skip for appropriate compliant removal offsite.

Operational Phase

- The procedures set out in the Environmental Management System (EMS) and conditions of the IE Licence will be strictly adhered to for the duration of the operational phase.
- Staff will be briefed on emergency procedures in the event of accidental fuel spillages.

Residual Effects

8.5.6.16. The potential effects are mainly limited to the construction phase. However, it is not anticipated that there would be any significant negative impacts in relation to topsoil, subsoil, geology or bedrock pore spaces. With the implementation of the prescribed mitigation measures, no significant effects are predicted to occur.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.6.17. I consider that with the implementation of the mitigation measures set out in the EIAR / EIAR Addendum there would be no significant residual impacts to land, soils and geology. This is mainly due to the type and form of proposed development, the existing developed nature of this brownfield site, the reuse of soils and other material within the site for the purposes of landscaping and construction of berms and the negligible loss of agricultural land. It is also due to the use of proven, effective measures to mitigate the risk of negative impacts linked to subsoil and excavation works, the potential contamination of soil due to leakages or spills, unintended consequences due to soil compaction, and that there would be no geological Impact on designated sites.

8.5.6.18. Furthermore, I consider that the use and storage of hydrocarbons and small volumes of chemicals is a standard practice associated with a construction site. The application outlines that proven and effective measures to mitigate the risk of spills

and leaks are proposed as part of the schedule of mitigation. These measures also form part of the CMP. I note also that the facility will not create or store any liquid digestate, which is a concern raised by the appellants. Instead, it will produce a bio-based fertiliser with a high dry content, similar to nutrient-dense compost. The proposed facility is therefore different to a traditional slurry-based operation. I note also that there is no intention as part of the application for the long-term onsite storage or disposal of liquid digestate which often has a typically higher water content and associate odour. There is a dedicated dewatering plant on the site. I note that there will be no discharge of surface water runoff from the process area and such runoff will be collected, contained and recirculated in the closed loop system within the AD Plant as part of the operational process.

8.5.6.19. There would be no significant negative residual impacts on land, soils and geology, in my opinion, providing the proposed mitigation measures are adhered to. This is also partly due to the relatively shallow nature of the excavation work required, the intention to reuse excavated materials onsite as part of works and the 'low' value of the soil and rock resource that exists. Importantly, I note that the proposed development is likely subject to an IE Licence from the EPA. The operator would be required to comply with all of the monitoring requirements in accordance with a future IE Licence for the facility.

8.5.6.20. Table 9-6 of the EIAR includes a table 'Residual Effects' which sets out the various construction and operational activities, predicted effects, their significance, duration, mitigation measure(s) and remaining residual risk (post mitigation). I note that residential effects range between moderate, positive and imperceptible.

Conclusion: Direct and Indirect Effects

8.5.6.21. In summary, I have considered this chapter and other submissions in relation to land, soils and geology. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the Proposed Development and through suitable site conditions.

8.5.6.22. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on land, soils and geology.

8.5.7. **Hydrology and Hydrogeology (Water)**

Issues Raised

8.5.7.1. Chapter 10 of the EIAR is 'Hydrology & Hydrogeology'. It identifies, describes and assesses the potential effects of the proposed development on the local hydrological and hydrogeological environment (surface water and ground water). The assessment work completed in accordance with the relevant EIA guidance and legislation. It also sets out the mitigation measures required to limit potential significant impacts to hydrology and hydrogeology and provides an assessment of residual impacts and significance of effects.

8.5.7.2. Issues raised by parties to the appeal in respect of Hydrology and Hydrogeology are that flooding risk has not been properly addressed, including that of the local waterway and drainage system – which is, according to third parties, flood prone, particularly during the wetter months. It is also stated by some third parties that the application proposes to direct surface water to a nearby field boundary roughly 90m south of the site. They go on to say that this particular drain cannot take any more water and already overflows during the winter.

Examination of the EIAR

Context

8.5.7.3. The appeal site is roughly 5.5 ha and situated within the former Lisheen Mine Site. It consists of infill from aggregate materials (soil, stone, and rock) extracted from a permitted borrow area within the wider Lisheen Mine site for the purpose of restoring the Lisheen Mine. Suitable surplus material generated during the decommissioning process has also been used. The historic mine entrance, now backfilled with concrete, is at the southern end of the site. The infrastructure at Lisheen Mine was demolished in accordance with the "Closure, Restoration & Aftercare Management Plan – C.R.A.M.P" (The Lisheen Mine, 2016) as part of the site's decommissioning process.

Baseline

8.5.7.4. The EIAR provides a description of the receiving environment. It includes a review of the overall site topography, water balance, surface water, flood risk identification,

groundwater, water framework directive (water body status and objectives), water resources and receptor sensitivity.

8.5.7.5. The site is relatively flat, with a gentle slope to the southeast toward the Cooleeney Stream. The soil conditions are described in Chapter 9 of the EIAR and also summarised under Section 8.5.7 of my report above. The Applicant has undertaken a site investigation which is included in Volume 3, Appendix 10.1 of the EIAR – this includes a Geophysical Survey.

8.5.7.6. The groundwater table occurs mainly between 3 to 8m below ground level (mbGL), within glacial soils and peat deposits overlying limestone units. There are seasonal fluctuations in the water table, with levels rising close to the surface in winter and dropping in summer due to evapotranspiration. Figures 10-4, 10-5, 10-6 and 10-7 show the inferred groundwater flow direction across the site, underlying bedrock aquifer details, groundwater vulnerability, and local surface water features, respectively. The GSI groundwater well database (GSI, 2024) identifies registered wells and groundwater sources in the surrounding area. There are 78 No. groundwater sources recorded at the site, or within a 2km radius of the site.

8.5.7.7. The EPA surface water quality monitoring database (EPA, 2024) was consulted by the Applicant as part of their work compiling the EIAR. A summary of the most recently published EPA water quality monitoring data is presented in Table 10-10 of the document. The information shows waterbodies having an indicative quality ranging from high to moderate, with a downwards trend.

8.5.7.8. Table 10-11 is in relation to the Water Framework Directive Status. It shows there is a hydraulic connection to the site to several waterbodies in the surrounding area, although some of these are spatially remote with significant dilution potential (see Figure 10-12). In terms of Water Framework Directive (WFD) risk, some waterbodies have a poor WFD status (2016-2021) and are at risk, whilst others are not at risk.

8.5.7.9. The bedrock aquifer beneath the site is a Regionally Important Aquifer - Karstified (diffuse) (Rkd). The site is not mapped within a groundwater SPA or in the vicinity of a significant water supply source. I note that Uisce Éireann raised no objection to the proposal in their submission to the Planning Authority, subject to condition.

8.5.7.10. The site-specific flood risk assessment (SSFRA) submitted with the planning application identifies that the site is in Flood Zone C, an area with a low risk of flooding (less than 0.1% Annual Exceedance Probability - AEP).

Potential Effects

Table HH1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• If the proposed development were not to proceed, no changes would be made to the current land use(s). The lands would continue to be managed under the existing farming and agricultural practices. • The current brownfield environment with associated drainage patterns and hydrological regime would remain.
Construction	• Where water is pumped from the excavations, there may be a temporary drawdown of local groundwater levels during dewatering operations. • Temporary reduction in impermeable surfaces across the site and groundwater vulnerability is expected to temporarily increase. • In karstified limestone areas, like the Thurles GWB, there is a high degree of interconnection between groundwater and surface water meaning any contamination of surface water can rapidly affect groundwater, and vice versa. • Potential risk of contaminants entering the groundwater to flow laterally towards receiving water supplies. • Risk of runoff with entrained sediment or other contaminants from groundworks areas and stockpiled soils entering Cooleeny Stream. • Concrete and other cement-based products are highly alkaline and corrosive and can have significant negative impacts on water quality. Entry of cement-based products

	into the site drainage system, into surface water runoff, and hence to surface watercourses or directly into watercourses is a risk to the aquatic environment.
Operational	Due to the design of the proposed development, including that the attenuation system does not allow for infiltration to the ground, there are limited potential sources of contamination during the operational phase. However, some potential effects are as follows: • The change in cover from undeveloped brownfield land to paved areas will result in an unavoidable, albeit minor, reduced infiltration potential. • Surface water runoff from roads and impermeable surface area may contain potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments). Therefore, there is a potential risk of discharge of untreated surface water effecting surface water quality and the WFD status of the Cooleeny Stream, Drish River, the Rossestown River and downstream waterbodies. • With accidental spillage from vehicles and plant and failure of SuDS there is a potential risk to water quality. • The SSFRA has determined there is no flood risk. • Water supply will be from the existing Moyne GWS which states that the proposed water supply connection is feasible indicating there is adequate supply.
Decommissioning	Potential effects on the receiving water environment, including the following receptors: • Underlying regionally Important Karstified (diffuse) Aquifer (RKd) which is part of the Thurles GWB.

	• Groundwater flow beneath the site to the west toward the Rossestown River. • Downstream receiving waterbodies, including the Cooleeny Stream, the Drish River, the Rossestown River and the River Suir. • The GSI (GSI, 2025) have identified 79 No. groundwater sources within a 2km radius of the site, 3 No. of which have been recorded as agricultural and/or domestic use. • There are 3 No. Natura 2000 Sites and 14No. pNHAs. The Natura 2000 sites are assessed and described in further detail in Chapter 8 of the EIAR.
Cumulative	<u>Construction Phase</u>: • Potential for negative cumulative effects to hydraulicly connected waterbodies, including effects on water quality of surface and groundwater bodies due to accumulation of excess sedimentation and mobilisation of contaminants from multiple source projects. • Potential 'negative', 'moderate', 'medium-term' effects on receiving waterbodies, including the Cooleeny Stream, River Drish, Thurles GWB and downstream waterbodies. <u>Operational Phase</u>: • There will be no discharge of foul water from the site during the operational phase and therefore no potential for cumulative effects. The associated cumulative effect on the hydrological and hydrogeological receiving environment will be 'neutral', 'imperceptible' and 'permanent'.

Mitigation

8.5.7.11. The EIAR (Chapter 10) assesses the potential effects of the proposed development on hydrology and hydrogeology (water). It sets out a comprehensive and extensive range of mitigation and monitoring measures to control and limit any potentially significant negative impacts in relation to this environmental topic. Where significant effects on hydrology and hydrogeology are predicted, specific mitigation has been incorporated as part of the overall project.

8.5.7.12. I consider the mitigation measures and related procedures to be detailed and thorough. They have been specifically designed to address potential impacts on various surface water and groundwater receptors, including onsite or adjacent / downgradient watercourses, such as the Cooleeny Stream, the Drish River, the Rossestown River and the River Suir; well supplies; transitional water hydrochemistry; stream morphology; European Sites and associated qualifying interests; ground / surface water dependent ecosystems; and foul water infrastructure. The measures are clearly set out Section 10.7 of the EIAR.

8.5.7.13. Some of the main mitigation measures and procedures proposed include:

Construction Phase

- No direct discharge to groundwater or surface water during the construction phase.
- Surface water runoff will be prevented from entering open excavations with sandbags or other approved methods by the appointed contractor.
- Machinery will not enter groundwater if encountered during construction.
- Surface water runoff from areas stripped of topsoil and surface water collected in excavations will be directed to onsite settlement ponds where measures will be implemented to capture and treat sediment laden runoff prior to discharge at a controlled rate.
- When lubricants, drilling fluids, or additives are required, the contractor will use water-based, biodegradable, and non-hazardous compounds under controlled conditions.

- Trenched double silt fencing will be installed along the southern boundary of the site. This will act as a temporary sediment control device to protect the Cooleeny Stream from sediment and potential surface water run-off from the site. The fencing will be inspected twice daily for any signs of contamination or excessive silt deposits and records of these checks will be maintained.
- Silt laden water within the trenches will be routed to a settlement facility before discharging to the Cooleeny Stream. A buffer zone of 10m will be maintained between the silt trap and the watercourse with natural vegetation left intact.
- Standard design and construction measures (i.e., groundwater drainage around impermeable subsurface structures) will ensure that groundwater flow across the site is maintained.
- All water leaving the site will be desilted in onsite settlement ponds to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.
- Ground excavation works, where possible, will be scheduled during periods of dry weather to minimise potential for silt laden runoff.
- Stockpiles of loose materials pending re-use onsite will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains.
- The sides and top of the stockpiles will be regraded to form a smooth gradient with compacted sides reducing infiltration and silt runoff.
- Pre-cast concrete will be used where feasible.
- All work will be carried out in dry conditions and effectively from any groundwater.
- Concrete batching will take place offsite.
- Wash down and wash out of concrete trucks will take place within a controlled bunded area, which will then be emptied into a skip for appropriate removal offsite.
- Any excess concrete will not be disposed of onsite.

- Fuel will be transported to the site in dedicated mobile units based on supply requirements.
- Fuelling and lubrication of equipment will be within a designated area of the compound, clearly marked and situated away from any watercourses and drains.
- Spill kits will be made available onsite and identified with signage for use in the event of an environmental spill or leak.
- Portable generators or similar equipment will be placed on drip trays.

Operational Phase

- Surface water will be managed in accordance with the principles and objectives of SuDS and the GDSDS to treat and attenuate water before discharging offsite.
- Regular operational monitoring and maintenance of drainage and SuDS measures will be incorporated as part of the overall management strategy for the proposed development.
- The procedures outlined in the EMS and the conditions of the IE Licence will be strictly followed.
- Spillage kits will be available onsite, including in vehicles.
- All staff will be trained and familiar with emergency procedures in the event of accidental fuel spillages.

Residual Effects

8.5.7.14. I note that no negative effects on water quality or downstream designated sites are anticipated. The potential for residual impacts on water and groundwater receptors is negligible.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.7.15. I consider that with the implementation of the mitigation measures set out in the application there would be no significant residual impacts to hydrology and hydrogeology (water). Given the nature of the project, which would involve 'near surface' construction activities, and the proposed mitigation, combined with the

hydrological regime and bedrock aquifer type – which is classified as 'regionally important' but with a groundwater vulnerability rating of 'moderate' – it is considered that impacts on groundwater would likely be negligible. Surface water is therefore the main sensitive receptor in terms of potential negative effects. The EIAR includes a series of detailed mitigation measures and procedures to address potential risks, some of which are referred to above.

8.5.7.16. I consider that effective surface water runoff management measures have been included as part of the project. This includes the implementation of a detailed CMP during the construction phase and incorporation of effective SuDS for the operational phase. This would help to prevent any negative effects on the receiving groundwater and surface water environment. Any potential for a deterioration in the status of waterbodies hydraulically connected with the subject site would be controlled and limited, in my opinion. This is taking account of the design avoidance and various protocols which will be implemented for each stage of the project.

8.5.7.17. I also note that there will be no operational discharge of surface water from the industrial process areas and that runoff is intended to be collected, contained and recirculated in the closed loop system within the AD Plant. There would be no negative effect to the existing WFD status of any waterbodies in the area, including the Cooleeny Stream, the Drish River, the Rossestown River and the River Suir, any other downstream waterbodies, or the Thurles GWB.

8.5.7.18. It is likely, in my opinion, that there would be a relatively significant water requirement once the overall project becomes operational, however. This includes washing and plumbing facilities for the office and administrative component(s), the overall biomethane production process, and also firefighting purposes. In relation to the office water supply, I note that a 50mm pipeline will be connected to the office and administration building from a Group Water Scheme. This is via a 75mm main to the south of the site. The Applicant has procured a letter of consent from the Moyne GWS (dated 6 August 2024). I note that the EIAR confirms that the site will have six permanent staff members, with an estimated daily water usage of 60 litres per person (totalling 360 litres per day). This usage has been agreed upon with the GWS.

8.5.7.19. The proposed process water usage for the biomethane production is 60 cubic meters per day. The water will be supplied through rainwater harvesting and storage. I note that the primary water source is the process area runoff lagoon, with a non-process area runoff storage basin designed to provide permanent storage of water to supplement the facility during dry weather.

8.5.7.20. I note that a separate and dedicated provision for firefighting purposes will be obtained through rainwater harvesting and storage. This would provide a constant flow of 35 l/s for a total of 120 minutes. As the site is not served by a public water supply infrastructure, or hydrants, this will be achieved using the surface water attenuation storage system. To meet these requirements, 252m^3 of water is required to made be available at all times. The site attenuation strategy, however, includes a permanent water storage volume of 310m^3, which exceeds this requirement.

8.5.7.21. In my opinion, and in having regard to the information contained in the EIAR (including mitigation measures), potential sources of pollution could be readily controlled for both the construction and operational phases of the development. Standard procedures would also help to ensure no significant releases would occur. Mitigation measures, and particularly the attenuation systems, filter drains, and petrol/oil interceptor would intercept potential pathways from the proposed works to watercourses. There would be no significant negative residual impacts on hydrology or hydrogeology (including on water quality or any downstream locations), in my opinion, provided the proposed mitigation measures are adhered to.

8.5.7.22. In terms of flood risk, I note that a Site-Specific Flood Risk Assessment (SSFRA) has been completed as part of the application. The SSFRA is consistent with 'The Planning System and Flood Risk Management - Guidelines for Planning Authorities' (2009). It confirms that the site is in Flood Zone C which has a low risk of flooding (i.e., less than 0.1% Annual Exceedance Probability - AEP). The proposal therefore complies with Section 2.2 ‘Flood Risk Management’ of the County Development Plan in relation to controlling flood risk. There is no evidence to suggest that flooding of land in the area is a problem due to any existing flood prone conditions associated with the site or its surrounding area.

8.5.7.23. The concerns raised by third parties regarding flooding, specifically in relation to a drain in the southern area of the site, have therefore been fully addressed, in my opinion. This has been achieved through a comprehensive evaluation of the local waterway and drainage infrastructure in the SSFRA, Engineering Services Report, and Chapter 10 of the EIAR, respectively.

Conclusion: Direct and Indirect Effects

8.5.7.24. In summary, I have considered this chapter and other submissions in relation to hydrology and hydrogeology. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the Proposed Development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on hydrology and hydrogeology.

8.5.8. Air Quality (including Odour) and Climate

Issues Raised

8.5.8.1. Chapters 11 and 12 of the EIAR are 'Air Quality (Odour)' and 'Climate'. They identify, describe and assess the potential significant direct and indirect effects on air quality and climate arising from the construction and operation of the proposed development. This section of the EIAR has been completed in accordance with the EIA guidance and legislation.

8.5.8.2. Issues raised by third parties are that the proposed development would negatively affect the local air quality, and that the mitigation measures put forward in the application are not adequate to prevent and control potential negative impacts from arising. It is also stated that malodours could attract vermin and flies, thus, spreading disease. This would pose a threat to cattle on nearby dairy and beef farms, particularly in terms of contracting TB.

8.5.8.3. Third parties also state that it is not clear how the proposed odour mitigation measures for the operational phase would continue to be monitored and tested into the future to ensure amenity impacts will not arise or affect residential property.

Examination of the EIAR

Context

8.5.8.4. As part of the implementation of the Framework Directive on Air Quality (1996/62/EC), as amended, four air quality zones have been defined in Ireland for air quality management and assessment purposes (EPA, 2024).

8.5.8.5. Dublin is defined as Zone A and Cork as Zone B. Zone C is composed of 23 towns with a population of greater than 15,000. The remainder of the country, which represents rural Ireland but also includes all towns with a population of less than 15,000, is defined as Zone D. For the purposes of air monitoring and assessment, the subject site is within Zone D.

8.5.8.6. The EIAR under Table 11.5 ('Summary process emission information for the facility') and Table 11.6 ('Summary of process emission concentrations for the facility') sets out the process emissions used in the modelling assessment to assess the predicted offsite impacts caused by emissions from the Combined Heat and Power (CHP) generator and emergency flare, as well as odour impacts emanating from the feedstock storage areas.

8.5.8.7. Calculation of the GHG emissions associated with the construction of the proposed development was completed using the TII Carbon Assessment Tool (online resource). GHG emissions associated with the facility are predicted to be a small fraction of Ireland's Electricity, Industry and Transport sector 2030 emissions ceilings. The development will also incorporate mitigation measures to reduce climate impacts during the construction and operational stages of the development.

8.5.8.8. The proposed development will also result in GHG emissions offsets by using feedstock to produce biogas, thereby avoiding methane emissions, and displacement of fossil methane. This would help to avoid the use of more carbon intensive fuels which is a positive impact on Ireland's greenhouse gas emissions, in line with the 2024 Climate Action Plan and Ireland's obligatory EU GHG net zero by 2050 trajectory.

Baseline

8.5.8.9. The EIAR confirms from the baseline data collected, and data available from other similar and comparable environments, that levels of nitrogen dioxide (NO2),

particulate matter less than 10 microns (PM10) and particulate matter less than 2.5 microns (PM2.5) and carbon monoxide (CO), are all well below the national and EU ambient air quality standards.

Potential Effects

Table AC1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The proposed development would not be constructed; no construction works would take place and impacts of fugitive dust and particulate matter emissions and emissions from equipment and machinery would not occur. The operational emissions to air associated with the proposed development would also not occur. • However, as the site is zoned for development, it is likely that a development of a similar nature would be constructed in the future in line with national policy and Development Plan objectives.
Construction	• Dust related impacts during construction works, particularly from excavation and backfilling, has the potential for direct, short-term, negative and slight effects on air quality. • The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e. rock, soil etc and the weather. • Dust dispersion will be influenced by external factors, such as wind speed and direction and/or, periods of dry weather. • Traffic emissions have the potential to impact air quality, particularly due to the increase in the number of heavy goods vehicles accessing the site.

	• Greenhouse gas emissions may increase, for example, including carbon dioxide (CO2), carbon monoxide and nitrogen oxides from vehicles and plant. • The transport of construction materials to the site will give rise to greenhouse gas emissions associated with transport vehicles.
Operational	• Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions due to an increased number of vehicles accessing the site. • Emissions through the release of nitrogen dioxide (NO2) and carbon monoxide (CO) from the CHP generator and emergency flare fuelled by biogas produced onsite. • Odour emissions from feedstock storage areas. • Release of greenhouse gas emissions, primarily through increased local traffic volumes and industrial processes taking place onsite. • However, the proposed development will also result in GHG emissions offsets through using feedstock to produce biogas, thus, avoiding methane emissions, and displacement of fossil methane by biogas. This will help to avoid use of more carbon intensive fuels and will have a positive impact on Ireland's greenhouse gas emissions, in line with the CAP25.
Decommissioning	• Decommissioning phase traffic has the potential to impact air quality. • Dust emissions from the demolition and removal of buildings and materials and road traffic emissions. • However, dust impacts during the decommissioning phase are expected to be similar to those during the construction phase, but of a shorter duration.

Cumulative	• Potential for cumulative impacts if the construction phase of the project coincides with other developments within 500m. However, with appropriate mitigation, the predicted cumulative impacts on air quality associated with the construction phase are deemed to be direct, short-term, negative and not significant. • The operational phase effect on air quality from road traffic is predicted imperceptible. The traffic data provided for the operational stage air quality assessment included cumulative traffic from with other developments in the area. The cumulative effects on air quality are considered direct, long-term, negative and imperceptible. • The cumulative assessment involved modelling NO_2 emissions for the proposed development as well as a nearby EPA licensed site. The cumulative effect in this case is direct, short-term, negative and not significant. • Agricultural activities in the area, light commercial activity, other local construction activities and the construction of the proposed development will require the consumption of fossil fuels and, therefore, lead to a minor increase in the emission of greenhouse gasses, cumulatively. However, given that most machinery would be small-scale, and the short-term duration of the construction phase, together with the implementation of the mitigation measures discussed above, it is unlikely there would be significant cumulative impacts arising.

Mitigation

8.5.8.10. The EIAR includes a comprehensive range of mitigation and monitoring measures in relation to land, soils and geology. Chapter 11 of the EIAR assesses the potential effects of the proposed development to ensure that appropriate mitigation will be able to limit any potentially significant impacts in relation to this environmental topic.

Where significant effects on land, soils and geology are predicted, mitigation has been incorporated into the project. The mitigation measures seek to avoid, reduce or offset potential significant residual effects.

8.5.8.11. I consider the mitigation measures and procedures to be detailed and thorough and note that they have been designed to address specific potential impacts on various receptors.

8.5.8.12. Some of the main mitigation measures and procedures proposed include:

Construction

- Develop and implement a stakeholder communications plan that includes community engagement before works commence onsite.
- During working hours, dust control methods will be monitored as appropriate, depending on the prevailing meteorological conditions.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel / petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15 kph haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Avoid burning of waste materials.

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Only remove the cover in small areas during work and not all at once.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems.
- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.
- Excavated material will be reused on site and will not require waste disposal and lower embodied carbon concrete will be utilised.

Operational

- Whole crop feedstocks will be stored in concrete-walled and floored clamps, where they are compacted and covered with a plastic tarp to create an airtight seal.
- Equine, farmyard, and broiler manure will be housed in storage sheds specifically designed to manage moisture levels and control odour prior to processing.
- Liquid feedstocks will be pumped into a dedicated liquid feedstock tank, which will minimise fugitive odour emissions.
- Vehicles exiting the site will be subjected to cleaning procedures.
- Deliveries of feedstock will be in enclosed trailers and sealed vacuum tankers.
- Feedstock delivery times will be controlled to minimise truck weighting times, therefore, minimising fugitive odour emissions on-site.
- Digestate will be dewatered and pasteurised before removal from the site to minimise odour generation.
- An odour management plan will be prepared for the operational phase of the site to ensure that all odour control methods are sufficient and assessed at regular intervals. The plan will also outline a procedure for addressing any odour complaints.

- Bio-based fertiliser will be distributed back to the feedstock (crop) suppliers, completing the proposed development's circular economy process. This bio-based fertiliser is the remaining by-product from the anaerobic digestion process and in this state is a product instead of a waste.
- The same truck which delivers the feedstock will also collect a load of bio-based fertiliser, reducing the number of truck movements.

Residual Effects

8.5.8.13. The potential effects are primarily limited to the construction phase when soils would be exposed during works, including excavation. I note that detailed dust mitigation measures are outlined in Section 11.6.1 of the EIAR and that these are also included in CMP.

8.5.8.14. The mitigation and protocols would help to ensure that no significant nuisance will occur due to construction dust emissions on any of the nearby sensitive receptors. Once these best practice mitigation measures, derived from the 'Guidance on the Assessment of Dust from Demolition and Construction, 2024' document (Institute for Air Quality Management), and other relevant dust management guidelines, are implemented, it is predicted that the residual effect on air quality during the construction of the proposed development would direct, short-term, localised, negative and not significant. The effects would pose no nuisance at nearby sensitive receptors, such as local residences, dwellings, etc.).

8.5.8.15. I note that in terms of the operational stage, the effect of the predicted concentrations of pollutants due to increased levels of road traffic will be imperceptible, and not significant, due to mitigation and relatively low numbers of additional vehicular trips. Therefore, no dedicated mitigation is required for when the facility is in operation. The residual effect of operational traffic on air quality has been assessed as direct, long-term, negative and imperceptible. The residual effect of operational emissions on air quality has been assessed as direct, long-term, negative and not significant.

8.5.8.16. Overall, no significant impacts to climate are predicted during the construction or operational phases of the proposed development.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.8.17. I consider that with the implementation of the mitigation measures set out in the EIAR and CMP, there would be no significant residual impacts to air quality and climate. Having regard to the nature and location of the project, I am satisfied that direct and indirect effects from during construction works and the operational phase would not be significant. There is potential for emissions, which would be mainly dust and greenhouse gas emissions, during the construction phase of the proposed development exists. However, residual effects would be imperceptible and negligible due to the proposed mitigation measures.

8.5.8.18. I the third parties concerns in relation to the control of malodours and that this could attract vermin and flies, thus, spreading disease. It is asserted that this would pose a threat to cattle on nearby dairy and beef farms, particularly in terms of animals potentially contracting TB. I am satisfied however that a thorough set of mitigation measures and procedures – as outlined above – would address this issue and prevent the spread of disease and illness amongst animals and livestock. The EIAR also includes detailed future monitoring protocols in relation to the issue or air quality and emissions (Chapter 22 refers).

8.5.8.19. I note that dispersion modelling has been undertaken to assess offsite impacts from NO_X emissions from the CHP generator and emergency flare, as well as odour impacts from the feedstock storage areas. The odour modelling results are shown in detailed in Table 11.27 of the EIAR. They indicate that the predicted ground level concentrations are below the relevant odour guideline value of 1.5 OUE/m3. Furthermore, under the worst-case operational scenario, the 98th%ile of mean hourly odour concentrations ranges from 0.18 – 0.40 OUE/m3 for the most sensitive receptor.

8.5.8.20. For the worst-case year, emissions from the site could potentially lead to predicted ambient hourly mean (measured as a 98th percentile) odour concentrations which are at most 27% of the relevant odour criterion at the worst-case receptor (see Figure 11.8). Therefore, the effect of the proposed development in terms of odour can be considered direct, negative, long-term and slight, which is overall not significant in EIA terms.

8.5.8.21. In relation to climate, I note that the proposed facility is for an anaerobic digestion plant where organic matter would be broken down to produce biogas and digestate. The biogas would be used to generate renewable energy and the digestate as a fertiliser. This type of development aligns well with the objectives of the Climate Action Plan (CAP25) and is in a position to positively contribute to Ireland's renewable energy targets and to support the circular economy through sustainable energy production. It is also in accordance with several CDP policies and objectives, including Policy 3-1 (to facilitate renewable energy development) and Policy 3-2 (to encourage innovative initiatives that promote the Circular Economy).

8.5.8.22. There would be no significant negative residual impacts on air or climate (including in relation to greenhouse gas emissions), in my opinion, providing the proposed mitigation measures are adhered to. There would however be significant beneficial effects in terms of GHG emissions by producing biogas which would help to avoid methane emissions and the displacement of fossil methane. This would have a positive impact on the country's GHG emissions in line with the 2024 Climate Action Plan and other obligations for EU GHG net zero by 2050.

Conclusion: Direct and Indirect Effects

In summary, I have considered this chapter and the submissions in relation to air quality and climate. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the Proposed Development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on air quality and climate.

8.5.9. Noise and Vibration

Issues Raised

8.5.9.1. Chapter 13 of the EIAR is 'Noise and Vibration'. It identifies, describes and assesses the potential significant direct and indirect effects in relation to noise and vibration arising from the construction and operation of the proposed development.

8.5.9.2. No significant issues were raised by parties. However, some parties stated that there has been a welcome reduction in noise, traffic and other impacts since the Lisheen mine closed a few years ago, the inference being that the proposed development could reintroduce certain amenity impacts, including that of noise disturbance.

Examination of the EIAR

Context

8.5.9.3. Chapter 13 considers various noise sources such as construction activities, operational plant and equipment, traffic generated by the development, and the potential cumulative impacts from other developments in the area. While some construction noise impact is expected, operational noise is not expected to significantly increase and affect the surrounding environment due to predicted operational noise levels falling significantly below EPA NG4 criteria ('Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities, (January 2016').

8.5.9.4. EPA NG4 outlines that noise attributable solely to onsite activities from a licenced premises should not exceed the following limits:

- Daytime (07:00hrs – 19:00hrs) – 55dB LAr,T
- Evening (19:00hrs – 23:00hrs) – 50dB LAr,T
- Night time (23:00hrs – 07:00hrs) – 45dB LAeq,T

Baseline

8.5.9.5. A baseline noise survey was conducted to characterise the existing acoustic environment surrounding the subject site. The baseline survey included attended and unattended noise measurements in various locations on and around the site.

8.5.9.6. I note that the unattended noise survey was conducted over six consecutive days, capturing data throughout the day and night. The attended measurements were taken at specific locations in the area surrounding the subject lands. The survey results found that the prevailing noise source was road traffic noise generated by the various local and regional roads in the area. The site does not meet the EPA definition for a 'quiet area'.

8.5.9.7. Figure 13.1 provides an aerial view of the site location, noise sensitive receptors, measurement locations and surrounding area. The Commission may wish to refer to this in their review of this environmental topic.

Potential Effects

8.5.9.8. The likely significant effects of the Proposed Development, as identified in the EIAR, are summarised in Table NV1 below.

Table NV1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The prevailing noise environment at the closest noise sensitive locations will remain in line with those measured during the baseline study and, therefore, there would be a neutral effect in terms of noise.
Construction	• Potential for some adverse effects on nearby noise sensitive properties due to noise emissions from construction activities. • Examination of the results set out in Table 13.8 of the EIAR indicate that construction noise without mitigation is predicted to exceed noise limits during all stages of the development with the exception of external and internal finishes (i.e., a worst case scenario). • The potential noise impact of additional construction traffic on the surrounding area would be negligible. The traffic in the area is expected to increase by a maximum of 8% due to construction traffic, which equates to 40 extra vehicle movements. However, this would not significantly affect noise levels in the area and the additional vehicles represent a small proportion of overall traffic volumes. • Based on distances to the sensitive receptors it is not anticipated that there would be a negative vibration impact from construction works.
Operational	• Potential noise impacts to the surrounding environment will include modest additional levels of traffic, operational

	noise from car parking, the operations from the site, and the plant and equipment.
Decommissioning	• Noise and vibration impacts during the decommissioning phase are expected to be similar to those during the construction phase, but of a shorter duration.
Cumulative	• In the event that the construction of the facility is phased there is the potential for both operational noise and construction noise impact at the same time. This will most like also be for short periods of time and not long term. • There is potential for noise impacts on the surrounding area if more than one site is under construction at the same time. • It is not predicted that this will have a significant impact provided the recommended mitigation is implemented, however.

Mitigation

8.5.9.9. The EIAR under Chapter 13 assesses the potential effects of the proposed development on noise and vibration. Where effects on noise and vibration are predicted, specific mitigation has been incorporated as part of the overall project.

8.5.9.10. The measures are clearly set out under Section 13.5 of the EIAR. I note that although construction phase noise emissions are expected to be short term, and to remain within the applicable construction phase threshold(s), the Applicant has proposed a range of precautionary mitigation measures, which include:

Construction Phase

- All plant and equipment to be switched off when idling.
- The use of white noise reversing alarms.
- Restriction on the dropping and loading of materials to less sensitive hours.

- The use of site hoarding and careful selection of areas for noise works, using buildings on the site, site offices and the building being constructed to screen noise from the works.
- Residents to be informed of any noisy works scheduled where there is the potential to generate high levels of construction noise or if specialist works are needed.
- Note: Table 13.21 provides recommended site-specific noise mitigation measures based on the attenuation required in Table 13.9.

Operational Phase

- It is concluded based on the assessment carried out as part of preparing the EIAR that once the facility is operational, noise levels would not contribute to any significant noise impact on the surrounding environment. Therefore, specific mitigation is not required.

Vibration

- It is predicted that construction vibration will not have a negative impact on the sensitive receptors

Monitoring

- Construction noise monitoring will be undertaken at periodic sample periods on the boundary with the nearest noise sensitive receptors.
- It is not predicted that there will be any negative vibration impacts. However, vibration limits have been provided in Section 13.8.1.2 of the EIAR should further monitoring be required.

Residual Effects

8.5.9.11. There is the potential for some construction noise impact during the construction phase. However, set noise limits, hours of construction and the implementation of the mitigation will ensure that construction noise and vibration will be limited to the short term with slight/no significant effects arising.

8.5.9.12. Furthermore, it is concluded based on the assessment and assumptions outlined in this section that operational noise levels would not contribute to significant impacts to its surrounding environment.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.9.13. I note that the construction phase for the anaerobic digestion facility is likely to generate noise from various activities and equipment usage, including diggers, concrete breakers, saws, and dumpers. Predictions using industry methodology indicates that potential exceedances of noise limits at nearby noise sensitive locations (NSL's) during the construction phase would require mitigation.

8.5.9.14. The types of mitigation identified by the EIAR include using quieter equipment, noise control at the source. This includes switching off idling equipment and using white noise reverse alarms, physical screening with site hoarding and barriers, and public engagement through a dedicated site liaison officer. The liaison officer would be the point of contact for any complaints and responsible for reviewing the noise monitoring results and exceedances.

8.5.9.15. I note a concern raised by third parties in relation to monitoring of noise levels and whether this will be done on a continuous basis. The EIAR confirms that this will subject to the relevant industry standards. I also consider that having a dedicated person to take and address issues raised by the community, including those residing in nearby residences, would help to address this particular concern. Operational noise would be subject to mandatory limits and monitoring under the IE licence.

8.5.9.16. Noise mitigation during the operational phase focuses on managing noise from truck movements, loading activities, and worker practices. The assessment found that operational noise will not have a significant impact on any NSL's. Construction noise will be appropriately mitigated.

Conclusion: Direct and Indirect Effects

8.5.9.17. In summary, I have considered this chapter and other submissions in relation to noise and vibration. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the proposed development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on noise and vibration.

8.5.10. **Traffic and Transportation**

Issues Raised

8.5.10.1. Chapter 14 of the EIAR is 'traffic and transportation'. It identifies, describes and assesses the potential significant direct and indirect effects in relation to traffic and transportation arising from the construction and operation of the proposed development.

8.5.10.2. Third parties raise concerns in relation to increased traffic volumes in the area and that this could lead to increased heavy vehicles using the local road network, particularly during the construction phase. Submissions stated that the application proposes to direct all traffic via the Cooleeney Road and main entrance to the overall bioeconomy campus, which was considered favourable. However, to ensure this happens, some appellants requested that this should be made a condition of planning, if the development is permitted.

8.5.10.3. Third parties also stated that no traffic should be allowed to use the Killoran Road as it is not suitable for heavy traffic and because it is frequently used by farm related vehicles and equipment (tractors, etc.). A further concern is that all HGV routes for feedstock providers to the facility should be formally designated as part of the application, but that the application is deficient having omitted this information.

8.5.10.4. Other issues raised note that there has been a welcome reduction in traffic volumes and since Lisheen mine closed a few years ago inferring that the facility may lead to an undesirable increase in vehicular trip numbers both during the construction and operational stages of the development.

Examination of the EIAR

Context

8.5.10.5. The site is located 7.5km to the northwest of Urlingford in County Tipperary. It is roughly 7km to the northwest of the M8, which connects Dublin and Cork.

8.5.10.6. The key road links of relevance to the site are:

- The M8, which is the key strategic link between Dublin and Cork. The nearest junction to the site is Junction 4, which provides all-movements access.

- The R639, which runs parallel to the M8, linking Johnstown, Urlingford and Littleton. It has a speed limit of 100km/h.
- The R502, which runs broadly east to west to the north of the site, linking Templemore and Johnstown.
- The L3201, a minor road that runs to the south of the Lisheen Mine site, linking the R502 to the L4115. It has a speed limit of 80km/h.
- The L4115, a minor road that runs north-south between the L3201 and the R639. It has a speed limit of 80km/h.

8.5.10.7. The site is proposed to be accessed via an existing private road which served Lisheen Mine, prior to its closure in 2015. This road runs southeast from the site and meets the L3201 at a priority junction. I used this access route as part of my site inspection of the lands.

8.5.10.8. Figure 14.3 is an aerial photograph which identifies the Site Location and Road Network. Figure 14.4 identifies HGV Routes to the site. Figure 14.5 shows where automatic traffic counters (ATC's) used to inform the traffic surveys were positioned in relation to the site.

Baseline

8.5.10.9. In terms of existing traffic flows, traffic surveys undertaken in 2024 show that existing traffic volumes on the L3201 and L4115 are very low, with around 500 vehicles per day travelling on the L3201, and around 1,000 per day on the L4115. Traffic flows on the R639 were recorded as slightly higher, with around 3,500 daily vehicles. None of the road links are currently congested or taking excessive amounts of traffic to render the local road network overcapacity.

Potential Effects

Table TT1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• If the proposed development does not proceed, there would be no additional traffic generated, or accommodation works carried out on the local road

	network and therefore no direct or indirect effects on roads and traffic.
Construction	• The construction stage of the development is expected to last for 18 months. Over this period, there are expected to be around 1,000 HGV trips to the site. No material will be exported from the site. In addition, around 20 construction staff will be based on site for the duration of the build. • In total, during the peak period of construction, there are expected to be 20 two-way HGV trips to the site each day, along with 20 two-way car / van trips for workers. • This will lead to a modest increase in traffic on roads in the study area. The overall significance of effect is assessed as likely, negative, slight, and short-term (lasting just over a year). The construction effects are considered to be not significant in EIAR terms. • However, if not properly managed, construction traffic has the potential to impact negatively on local communities and other road users.
Operational	• During the busiest months of operation (July and November), the development will likely generate a total of 54 two-way HGV movements per day, plus a small number of vehicle trips for the three on-site staff members (estimated as 6 two-way movements per day). • Many vehicles delivering material to the site will also pick up bio-fertilizer for their return journey, an efficiency that would help to reduce the overall number of vehicle trips. • This will lead to very modest increases in traffic on roads in the study area. • The overall significance of effect on the L3201, L4115 and R639 is likely, negative, slight, and long-term (lasting for

	the duration of development). Operational effects are considered to be not significant in EIAR terms.
Decommissioning	• The number of vehicles generated during the decommissioning phase is likely to be similar to that generated during the construction phase, which will lead to modest increases in traffic on roads in the study area. • Given that decommissioning will not occur until many years in the future, it has not been possible to assess cumulative effect during this phase at the present time.
Cumulative	• Six developments were identified as having the potential to generate traffic which could lead to cumulative effects (See Figure 14.9 'Potential Cumulative Effects' for list of projects and potential for in-combination effects.) • A detailed assessment of the L3201 and L4115 was carried out to assess the cumulative traffic effects relating to driver delay, accidents and safety, severance, pedestrian delay and amenity, and 'wear and tear' on roads. • The L3210 and L4115 pass through lightly populated, semi-rural areas, and therefore there are no particularly sensitive receptors such as urban areas, schools or congested locations that could be significantly affected by increases in traffic. • No significant effects in terms of traffic and transportation.

Mitigation

8.5.10.10. The EIAR under Chapter 14 assesses the potential effects of the proposed development on traffic and transport. It concludes that there would not be a significant effect on the local road network during either the construction or operational phases, or in combination with other developments, because of the proposed development.

8.5.10.11. Some of the key mitigation measures and procedures proposed include:

- A Mobility Management Plan (MMP) has been prepared (see Appendix 14.3). The aim of the MMP is to minimise unnecessary vehicle trips and to ensure that HGV deliveries to and from the site are safely and efficiently managed.
- A Construction Traffic Management Plan (CTMP) forms part of the wider Construction Management Plan (CMP). The CTMP has been designed to provide a structured approach to managing and coordinating how vehicle and pedestrian movements will be managed in and around the construction site.
- The CTMP also sets out the principles for which construction traffic will be planned for, managed, and monitored, to ensure that any impacts on local communities, vulnerable users and road users, will be minimised as far as possible.
- Reduce dust emissions through regular watering of exposed areas, controlling vehicle speeds, and conducting air quality monitoring to ensure minimal disruption.
- Additional protocols address water quality including runoff controls and safe storage of hazardous materials to prevent contamination of nearby water sources.
- Effective waste management practices will ensure the minimisation, reuse, and recycling of materials, with regular waste audits to track compliance.
- Other emergency response measures are in place to handle any accidental spills or other environmental incidents promptly.

Residual Effects

8.5.10.12. The residual impacts associated with the proposed development are not likely to be significant, subject to mitigation. However, it is anticipated that temporary slight negative impacts on the surrounding road network may occur during the 18-month construction program.

8.5.10.13. The main impacts would likely be during the peak earthworks phase of the project where the most amount of equipment, machinery and HGV's would be travelling to and from the site. The potential impacts would be mitigated however by ensuring

construction traffic use agreed transport routes only. This would help to avoid local roads incapable of taking heavy traffic being used by the development.

8.5.10.14. With the CTMP and MMP in place, the residual impact of the proposed development is predicted to be 'not significant', both in terms of the development itself isolation and cumulatively.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.10.15. The EIAR under Section 14.6.1 states that the construction phase is intended to be a single-phased construction program, involving sub-phases / workflow events as follows:

- Phase 1.1: Site set-up and compound / access - 1 month
- Phase 1.2: Construction of Process Area Run-Off Drainage Lagoon – 1 month
- Phase 1.3: Main construction stage – 18 months

8.5.10.16. I note that during the main construction stage, approximately 10,000m^3 of materials is expected to be imported to the site, equating to a total of 834 inbound HGV journeys (1,668 two-way trips). There would also be a small number of deliveries (such as timer or manhole deliveries), which will bring the number of inbound deliveries to c. 1,000 HGVs (2,000 two-way trips). I note that no material is intended to be exported from the site. The construction phase will require approximately 20 staff / employees for the duration of the build, which is relatively low, in my opinion, for a project of this scale and size. Nonetheless, this will still make an important contribution to the local economy in terms of employment over almost a two-year period.

8.5.10.17. The expected levels of traffic during the operational stage is set out in Section 4.2 of the Transport Assessment. I also note that Table 14.6 of the EIAR shows the predicted daily vehicle trip generation for facility throughout the year. The EIAR confirms that many vehicles delivering material to the site will also pick up bio-fertiliser for their return journey. This 'doubling-up' of trips would avoid empty goods vehicles and result in an efficiency that would help to reduce the number of overall vehicle trips undertaken on daily basis.

8.5.10.18. The busiest months of operation are expected to be July and November where the development would generate a total of 54 two-way HGV movements per day, plus a

small number of vehicle trips due to onsite staff members (estimated as 6 two-way movements per day). Again, this is not a particularly high number of vehicular trips given the existing baseline situation and road conditions of the surrounding roads network. In this regard, I note that the facility would not lead to an increase in total traffic, or HGV traffic, above 30% for any road link in the study area (see Table 14.7 of the EIAR). Only the L3201 is predicted to see an increase in flow of 10% or more, but this is due to the relatively low traffic flows which exist at present. The absolute increase in traffic for this road is therefore small, being limited to 55 two-way trips per day.

8.5.10.19. The application states that it is anticipated that biomethane produced by the facility will be brought to Central Grid Injection (CGI) points located at Mitchelstown, Co. Cork, and at a private grid injection facility at Cush, County Kildare. It will also be compressed for distribution as natural gas (CNG) for use by large industrial and commercial interests in the wider area.

8.5.10.20. Whilst it may have been preferable if the facility had direct or shorter access to a gas injection terminal nearer the site, I note that the required number of vehicular movements to transport the gas to the envisaged CGI points are infrequent. The gas will be transferred by gas trucks which generate roughly four trips per month in total (see Table 14.6 of the EIAR).

8.5.10.21. Table 14.15 of the EIAR provides a summary of the Cumulative Effects in relation to driver delay, accidents and safety, severance, pedestrian delay and amenity, and 'wear and tear' on roads. The significance of effect is 'slight' in each case.

8.5.10.22. In conclusion, I consider with the implementation of mitigation measures there would be no significant residual impacts in terms of traffic and transport.

Conclusion: Direct and Indirect Effects

8.5.10.23. In summary, I have considered this chapter and other submissions in relation to traffic and transportation. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the proposed development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on traffic and transportation.

8.5.11. **Material Assets (Waste and Utilities)**

Issues Raised

8.5.11.1. Chapters 15 and 16 of the EIAR are ‘Material Assets: Waste’ and ‘Material Assets: Utilities’. The chapters set out the mitigation measures proposed to avoid, reduce or offset any potential significant effects that have been identified in relation to these environmental topics. The utilities section relates to surface water drainage, wastewater drainage, water supply and ESB utility services.

8.5.11.2. No significant issues were raised by parties to the appeal in relation to waste and utilities other than to say there is an overconcentration of similar such waste facilities in the local area.

Examination of the EIAR

Context

8.5.11.3. The site is situated in Lisheen, Co. Tipperary, within the footprint of the former Lisheen Mine complex. It is a brownfield site, reflecting its historical industrial use, with all mining and associated activities having ceased, and the land since rehabilitated and levelled.

8.5.11.4. The site lies within the jurisdiction of Tipperary County Council which is the local authority for setting waste management objectives and plans in the area. The site is also located within the southern waste region which previously would have been managed in accordance with the Regional Waste Management Plan 2015 – 2021, however this has since been superseded by the National Waste Management Plan for a Circular Economy 2024 – 2030.

Baseline

8.5.11.5. Ballaghveny Landfill is an operational landfill which accepts non-hazardous municipal and construction and demolition waste from pre-approved contractors only. It is approximately 28km northwest of the site.

8.5.11.6. Utilities in the area include electricity; telecommunications; gas; water supply; foul and surface water drainage.

Potential Effects

Table MA1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• In the "do-nothing" scenario, the anaerobic digestion facility would not proceed and therefore the feedstocks would need to be disposed of in a different manner. • Biogas will not be produced. • Methane would not be captured. • There would be no significant change on the subject site regarding the surface water drainage, wastewater drainage, water supply or ESB Grid.
Construction	Waste • Waste will be produced from surplus building materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, plastic, cables etc. • Packaging waste including plastic wrap and cardboard is expected to be produced. • Hazardous wastes require specialist handling and removal. • Onsite storage of hazardous wastes will be minimised, with specialist removal off-site organised on a regular basis. • All waste generated during construction will only be recovered or disposed of as an authorized site which has a current waste license or waste permit. Utilities • Surface water from the existing development shall continue to discharge to the field boundary drain south of the subject site.

	• Mobilisation of sediments and harmful substances during the construction phase, due to exposed soil, and earth movement/ excavations, which may be flushed into the watercourses currently serving the site. • Accidental spills of harmful substances such as petrol/ diesel or oil during the delivery and storage of harmful substances • The contractor shall install temporary welfare and toilet facilities. The discharge from these facilities shall be removed from the site using tankers. The water demands arising would have a neutral and imperceptible effect. • Electricity will be required for construction activities for temporary lighting, equipment use etc. The power demands would be imperceptible, neutral and have a short-term effect.
Operational	<u>Waste</u> • Will provide a means for the disposal of the following feedstocks: whole crop rye, straw-horse manure, bellygrass sludge, dairy sludge and dewatered manure, pulverised straw, sand recycle/dirty water. They will be utilised to produce renewable biomethane. • The operational phase is not likely to generate a large volume of waste. <u>Utilities</u> • The proposed surface water that will ultimately outfall into the existing Field Boundary Drain will be of higher water quality due to SuDS. The impacts on surface water discharge from the site are therefore considered to be positive, significant and permanent. • There is therefore no outfall from the site for wastewater and so the operational impact would be negligible.

	• Supply from the private water scheme for process water and firefighting will not be permitted. Instead, this will be generated by rainwater harvesting and storing of same. As part of the site attenuation strategy, a permanent water storage volume of 310m^3 which satisfies the requirement of 252m^3. In the case of a firefighting emergency, the attenuation basin can be directly used for draw-down. • The process water usage will be 60m^3 per day. Each of the drainage catchments will harvest the runoff originating from roofs, hardstanding areas and yards. • Any surplus rainwater from the Non-Process Area Catchment will be directed to the site's surface water system and outfall at a restricted rate into the field boundary drain to the south. • A new underground 10kV cable will be constructed between the existing ESB substation to the northeast of the site, to a new private substation within the subject site to facilitate mains power and electricity. • The subject site is adjacent to an operational wind farm producing energy for the national grid. There is also an existing permission (Reg. Ref. 211128) for a 122MW solar farm to the east of the site. Therefore, there are plenty of energy sources available to the site.
Decommissioning	• The decommissioning phase is expected to generate additional volumes of waste, including concrete, steel, and plastic pipework. However, adherence to the CMP and the Decommissioning Plan will ensure proper waste handling. • The decommissioning phase will include the removal of all surface and underground plant and equipment.

Cumulative	• Developments under construction and proposed in the vicinity of the site have been considered. • Table 15-4 sets out all of the cumulative schemes in the area which have been considered. • There will be a greater demand on existing local waste management services and on regional waste acceptance facilities However, the capacity of waste collection companies and waste management facilities in County Tipperary have been designed with forward planning and expansion in mind to cater for a growing population. • The predicted cumulative effect will be short term, not significant, and negative.

Mitigation

Construction Phase: Waste

- Waste materials will be separated at source in accordance with the CMP.
- Prior to the commencement of construction, detailed calculations of the quantities of topsoil, subsoil and green waste will be prepared, and soils will be tested to confirm they are clean, inert and/or non-hazardous.
- Reuse of excavated soil and stone prior to excavation.
- A competent and authorised waste management company will be employed to manage waste arising.
- All waste quantities and types will be recorded and quantified, and records will be retained onsite for the duration of the construction phase.

Operational Phase: Waste

- Recyclable materials to be segregated at source to reduce waste and contractor costs and to ensure maximum diversion of materials away from landfill.

- General waste, including day-to-day office waste and municipal waste from staff areas, will be segregated and collected by a licenced contractor.

Construction Phase: Utilities and Services

- Review the service records of existing assets to determine their depth, location and proximity to planned cable trenches.
- The use of Ground Penetration Radar (GPR) to provide confirmation of the locations of existing assets.
- Use of trial holes or slit trenches to provide more precise information about the exact location of existing assets.

Operational Phase: Utilities and Services

- The process and non-process areas have been designed to remain completely separate.
- The wastewater pump station has been designed with 24-hour emergency storage and a standby pump in the event of failure of the primary pump.
- In the event of failure of one of the processing tanks, the bunded area is designed with a temporary storage capacity of 110% of the largest tank.
- The new network will be commissioned and subject to a regular operational inspection and maintenance regime in accordance with the utility providers' procedures and rules for electrical installations I.S 10101: 2020.
- The facility will have has a CHP unit in case of any power outages.

Residual Effects

Waste

8.5.11.7. The CMP accompanying the application outlines a series of construction resource and waste management mitigation measures. This would reduce the predicted effect of the proposed development on waste infrastructure by compliance with national legislation, the allocation of adequate time and resources to efficient waste management practices, continued use of permitted/licensed waste hauliers and facilities, correct management and storage of waste to avoid litter or pollution at the site.

8.5.11.8. The residual effects on waste management are considered to be not significant, negative, and short-term due to the small volume of waste expected as a result of the construction design and methods outlined above.

8.5.11.9. During the operational stage, the facility will utilise feedstocks and farm waste to create biogas and bio-based fertiliser. The process utilises feedstock – a portion of which is waste – to generate a useful byproduct that would re-enter the circular economy. The process is cyclical in nature and the digestate at the end of the process would be returned to supply farms for use as a fertiliser in normal farming practices. Furthermore, trucks delivering feedstock will leave the facility and return to source sites and farms with the bio-based fertiliser onboard. The proposed development would therefore provide help to dispose of waste which is otherwise difficult to treat / get rid of. Additionally, the use of the bio-based digestate is more eco-friendly than that of manure spreading.

8.5.11.10. The residual effects of the proposed development on waste management in the area is considered to be long term, positive and not significant in nature.

Utilities and Services

8.5.11.11. The provision of SUDS would provide improvements to the current surface water drainage situation. I note that rainwater harvesting, ponds and swales forming part of the development facilitate a reduction in surface water runoff volumes from the site. The collection of surface water runoff via bio-retention areas would also help to improve water quality for the receiving area. The provision of attenuation storage and flow control would reduce surface water runoff rates, which is a welcome and positive outcome.

8.5.11.12. In terms of wastewater drainage, water supply, and ESB utility services, it is expected that residual impacts would negligible.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

Waste

8.5.11.13. I note that large quantities of waste will not be produced during the construction phase. However, the proposed mitigation measures would help to ensure that the waste from the construction phase would be dealt with in accordance with the relevant legislation and guidance. This includes the Waste Management Act 1996

(as amended) and associated Regulations, the Litter Pollution Act 1997, and the National Waste Management Plan for a Circular Economy 2024-2030. The mitigation measures would ensure optimum levels of waste reduction, reuse, recycling and recovery and this, in my opinion, would help to promote a more sustainable consumption of resources.

8.5.11.14. A worst-case scenario in relation to waste would be where a previously unclassified hazardous waste stream or source were discovered on the site during excavation and early works – one which was not potentially identified and segregated appropriately from a past activity Such waste could have resulted in the cross-contamination of a non-hazardous waste stream, such as soil and stones, resulting in a large volume of hazardous waste requiring specialist removal and treatment. Furthermore, contaminated soil and stones would no longer be fit for use for fill and landscaping as part of the works and would require to be replaced with imported materials. However, taking account of the results of site investigations undertaken, and avoidance and mitigation measures set out in the EIAR, such a worst-case scenario would be unlikely, in my opinion.

8.5.11.15. The facility will provide a means for the disposal of waste which is otherwise difficult to dispose of. Also, as noted above, the use of the bio-based digestate is more environmentally friendly than that of manure spreading, as the AD process captures gasses emitted from manure for use in energy. I note that the application is clear in that there is no waste associated with the process, as the feedstocks will be fully spent as part of the anaerobic digestion process, resulting in bio-based fertiliser. The fertiliser will then be sent back to supply farms. Biogas will be generated as part of the process, which is a renewable energy source. Importantly, the only waste expected to be generated by the facility is from employees, site visitors, and office supplies. This would be minimal and not at a significant scale.

8.5.11.16. There are limited other similar types of uses in the surrounding vicinity (i.e., anaerobic digestion plants) and I consider that the proposed facility is aligned with the objectives of the National Bioeconomy Campus, including promoting innovation, encouraging sustainable practices and integration of bio-based industry. The proposal is in accordance with several of the policies and objectives contained in the Tipperary County Development Plan 2022 – 2028 regarding developing a low-carbon society and climate action (Policies 3-1 and 3-2) and supporting renewable energy

and the bioeconomy (Policies 10-3 and 10-4). I acknowledge that there are other developments in the surrounding vicinity which are more focussed on producing renewable energy (solar and wind), waste recycling, food processing, and the conversion of dairy industry by-products to bio-based products, such as biodegradable plastics, and other types of biofertilizers (e.g., biorefinery), However, none are focused on the same industrial process where biogas is generated, which is the main purpose of the proposed facility.

8.5.11.17. Following the implementation of mitigation measures, including the segregation of waste, and employment of a suitably licenced waste contractor, the residual effects on waste management in the area would be long term, positive and not significant in nature.

Utilities and Services

8.5.11.18. During construction, the contractor will implement best practice methodologies and protocols to protect utility infrastructure and services from damage. Measures will include warning signs and markings confirming the location of utility infrastructure and equipment, safe digging techniques near known utilities, and, when possible, the isolation of sections of infrastructure during works in the immediate vicinity.

8.5.11.19. In my opinion, and in having regard to the information contained in the EIAR (including mitigation measures), there would be no significant negative residual impacts on material assets. This is provided the proposed mitigation measures are implemented and adhered to.

Conclusion: Direct and Indirect Effects

8.5.11.20. In summary, I have considered this chapter and other submissions in relation to material assets (waste and utilities). I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the proposed development and through suitable site conditions.

8.5.11.21. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on material assets (waste and utilities).

8.5.12. **Archaeology and Cultural Heritage**

Issues Raised

8.5.12.1. Chapter 17 of the EIAR is 'archaeology and cultural heritage'. It describes the appropriate mitigation measures to limit any potential significant impacts to archaeology and cultural heritage. It also outlines the methodology used and the assessment criteria for identifying any residual impacts and significance of effects.

8.5.12.2. No issues were raised by parties to the appeal in relation to this environmental topic.

Examination of the EIAR

Context

8.5.12.3. The EIAR has completed a baseline study of the subject lands, which is underpinned by a desktop analysis and field inspections. Several statutory and voluntary bodies were also consulted to gain further insight into the cultural background of the background environment.

Baseline

8.5.12.4. The area is in the townland of Killoran, County Tipperary. There are no recorded archaeological sites within the appeal site. However, it is in a landscape rich in archaeological heritage.

8.5.12.5. There are 20 no. recorded monuments within the 500m study area, with the majority prehistoric in date. A large number of these monuments have previously been excavated as part of the previous mining activities associated with the area. Any archaeological features discovered during monitoring were fully excavated in the late 1990s (preserved by record). The only exception is c. 0.5ha of greenfield in the southwest portion of the site.

8.5.12.6. Figure 17.1 shows nearby archaeology in relation to the appeal site.

Potential Effects

8.5.12.7. The likely significant effects of the proposed development, as identified in the EIAR, are summarised in Table CH1 below. The potential impact of the proposed development on cultural heritage is assessed under Section 17.5.

Table CH1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• There would be no negative impact on the archaeological, architectural or cultural heritage resource.
Construction	• Potential for direct negative (permanent) effects on previously unrecorded archaeological remains. Effects may range from moderate to very significant, dependant on the nature, extent and significance of any remains that may be identified.
Operational	• No negative impacts during operation are predicted for archaeological, architectural and cultural heritage resources.
Decommissioning	• Prior to the commencement of development, a programme of archaeological test trenching will be carried out within the small greenfield portion of the site to confirm the results of the geophysical survey.
Cumulative	• No cumulative impacts are predicted during the construction phase as any archaeological remains found within the small portion of greenfield on the site will be fully preserved by record or in-situ. • No cumulative impacts during operation are predicted upon the archaeological, architectural and cultural heritage resource, as no operational impacts have been identified as part of the proposed development.

Mitigation

8.5.12.8. All topsoil stripping in the southwestern corner of the site will be subject to archaeological monitoring. If any features of archaeological potential are identified, further mitigation will be required, such as preservation in-situ or by record.

8.5.12.9. Any further mitigation will require agreement from the National Monuments Service of the DoHLGH.

Residual Effects

8.5.12.10. Following the completion of the mitigation measures detailed above, there will be no significant effects upon the archaeological, architectural or cultural heritage resource.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.12.11. The majority of the site accommodates industrial structures and developed areas associated with the previous mining use on the land, many of which have since been demolished. The site has therefore been previously stripped of topsoil and developed, with the exception of a portion of land at the southwest corner, which covers c. 0.5ha. I therefore consider that this small area, which remains undisturbed, retains some archaeological potential. I note that there is potential for direct negative (permanent) effects on previously unrecorded archaeological remains which may be present in this location. The EIAR states that effects may range from moderate to very significant, dependant on the nature, extent and significance of any remains identified.

8.5.12.12. I note that the Applicant makes provision for archaeological monitoring to take place in the part of the site where topsoil has not been stripped away. The EIAR states that if any features of archaeological potential are identified, further mitigation will be required, including preservation features in-situ or by record. Any further mitigation would require agreement from the National Monuments Service of the Department of Housing, Local Government and Heritage, and I note that this is factored in as a further mitigation measure.

8.5.12.13. I note that a submission made by the Department of Housing, Local Government and Heritage (DAU for Archaeology) to the Planning Authority confirms that two recorded national monuments apply to the site. The monuments are a ‘pit burial’ (Record No. TN03047) and ‘house’ (Record No. TN03123). The report also notes that the proposed development is relatively large in scale and that it is possible that previously unknown archaeological features/deposits may be disturbed during the course of groundworks required for the proposed development. The DAU, upon receipt of Geophysical Survey Report completed by the Applicant (further information) state that an Archaeological Impact Assessment (AIA) should be required under condition. The AIA should include pre-development archaeological

testing and be carried out in advance of construction. I recommend that this condition should be included in the event permission is granted.

8.5.12.14. I note also the comments in the submission made by the DAU for Archaeology (dated 6th December 2024). Here, it is stated that while the Department does not necessarily disagree with the Applicant's recommendation to undertake onsite monitoring, given the high potential for archaeology in the area, and the lack of previous archaeological investigations within the 0.5ha section of the site, the Department is of the opinion that archaeological monitoring would pre-emptive. The DAU go on to recommend that pre-development archaeological testing should be carried out on the site and that test trenches be excavated under licence. This can be achieved by condition.

8.5.12.15. Having regard to this, no effects during construction or operation are predicted upon architectural heritage or cultural heritage resource. Following the completion of the mitigation measures set out in the EIAR, and subject to meeting the conditions as recommended by the DAU, there would be no significant residual impacts arising in relation to archaeological, architectural or cultural heritage resources.

Conclusion: Direct and Indirect Effects

8.5.12.16. In summary, I have considered this chapter and other submissions in relation to archaeology and cultural heritage. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the proposed development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on archaeology and cultural heritage.

8.5.13. **Landscape and Visual**

Issues Raised

8.5.13.1. Chapter 18 of the EIAR is 'Landscape and Visual'. It addresses the potential landscape and visual impacts of the proposed development and sets out the Landscape and Visual Impact Assessment (LVIA) methodology employed by the Applicant, a description of each component of the overall project (i.e., the proposed development) and the existing baseline landscape, as well as landscape policy and relevant guidance.

8.5.13.2. The assessment comprises the following:

- Assessment of landscape sensitivity.
- Assessment of the magnitude of landscape impacts.
- Assessment of the likely significance of landscape effects.
- Assessment of visual receptor sensitivity.
- Assessment of the magnitude of visual impact upon receptors at representative viewpoint locations (supported by verifiable photomontages).

8.5.13.3. No significant issues were raised by parties to the appeal in relation to this environmental topic. However, some parties stated that the separation distances between existing houses and the proposed facility are not adequate and that this could lead to unacceptable amenity impacts, including odour, noise, light.

Examination of the EIAR

Context

8.5.13.4. A 2.5km radius study area was determined to inform the landscape and visual assessment. This was based on site visits, mapping analysis and local environmental features.

8.5.13.5. The analysis completed by the Applicant shows that the presence of intervening vegetation, topography, and surrounding structures restricts visibility, thus, confining potential landscape and visual impacts primarily within 2.5km of the site. Beyond this, the proposed development would be largely obscured, with any residual visibility and highly diminished. This approach reflects findings from similar developments, which indicate limited discernibility and no significant landscape impact beyond a distance of c. 2.5km.

8.5.13.6. The 2.5km scope aligns with the proportional impact assessment approach endorsed by the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3). Furthermore, I note that all identified significant receptors within this range have been assessed, while unnecessary assessment of visually unaffected areas has been avoided.

Baseline

8.5.13.7. As noted above, the appeal site lies within the rehabilitated landscape of the former Lisheen Mine complex, encompassing 5.5ha in a predominantly rural setting in County Tipperary. The surrounding landscape is primarily agricultural, interspersed with forestry and historic peatlands previously managed by Bord na Móna. The site is within the designated National Bioeconomy Campus, reflecting a regional shift to sustainable and bio-based industries. The terrain is flat, with recolonised scrub and ground vegetation, along with mature hedgerows bordering the site, particularly along the northwestern site boundary.

8.5.13.8. Other industrial and renewable activities, such as Acorn Recycling / AQS Environmental Solutions and the Irish Bioeconomy Foundation's Research and Development Unit, enhance the site's positioning as a hub for sustainable and bio-based industries.

8.5.13.9. The EIAR notes that the range of visual receptors is limited due to the isolated and industrial character of the former Lisheen Mine site. In summary, the following is noted:

- Scenic Routes and Views: There are no designated scenic routes or views within proximity to the site
- Centres of Population: The site is remote from major population centres, with the closest village, Urlingford, approximately 6.3km to the northeast.
- Major Routes: Although the R502 regional road and M8 motorway enhance site accessibility, there are no significant major routes within immediate visual range of the site.
- Local Residential Visual Receptors: A small number of individual rural residences are scattered within the wider area. The closest residence is located approximately 300 west of the site, where existing hedgerows and topographical features offer screening. Views from these properties primarily encompass the industrial context of the former mine site, now adapted for renewable energy and bio-based industrial uses.

- Visual Receptors at Tourism Amenity and Heritage Features: There are no tourism, amenity, or heritage features within the vicinity of the application site that would classify as visual receptors.

Potential Effects

Table LV1: Summary of Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• No changes would be made to the current land use practices, and no landscape and visual impact would occur.
Construction	• Visual effects will be negligible. • Due to intervening vegetation around the site, much of the construction activity will be obscured, and the visual envelope will remain limited.
Operational	• The magnitude of landscape change from the proposed development is classified as 'medium'. • Will introduce a cluster of industrial buildings integrated within a structured landscape featuring screening vegetation representing a medium magnitude of change. • Will consolidate the industrial character of the Lisheen complex while enhancing its alignment with regional sustainability goals. • The project is designed to harmonise with the existing landscape through structured open spaces, appropriate materials, and scaled building forms, whilst supporting a gradual but positive shift in the area's landscape character in line with policy.
Decommissioning	• Will be similar in nature to those for the Construction Phase.

	• Works will involve the removal of structures, hardstanding areas, and internal infrastructure, followed by site reinstatement and re-seeding, ultimately returning the site to a greenfield condition. • Activities will result in temporary, low-magnitude change to the landscape, with effects contained within the existing industrial setting of the Lisheen complex. The long-term effect will be neutral, as the site will be returned to a natural state consistent with its pre-development character. • Once decommissioning is complete, the site will be reinstated to a greenfield condition, removing any residual visual impacts. • Surrounding vegetation will further minimise visibility, and the temporary nature of these effects ensures they are short-term and not significant.
Cumulative	• Projects within a 2.5km radius within this category were assessed for potential cumulative landscape and visual impacts due to their proximity to the proposed development. The results of the assessment are that no significant cumulative effects will arise. • Refer to baseline photographs and verified photomontages (available in Volume 3: Appendix 18.1).

Mitigation

8.5.13.10. The EIAR under Chapter 18 assesses the potential effects of the proposed development in terms of landscape and visual. Where visual effects on receiving landscape are predicted, specific mitigation and monitoring protocols have been incorporated as part of the overall project. The measures are referenced under Section 18.6 of the EIAR.

Construction Phase

8.5.13.11. There is no specific mitigation proposed during the construction phase for landscape and visual. However, site hoarding around the facility for safety, security and noise attenuation would also serve as a visual screen. The construction phase is also temporary.

Operational Phase

8.5.13.12. There is no specific mitigation proposed for the operational phase. However, the design of the proposed development incorporates several visual and layout considerations. This includes a 'recessive' colour scheme, particularly for the shed sheeting and structures, which would reduce visual prominence and help the development to integrate harmoniously with the surrounding landscape.

Residual Effects

8.5.13.13. The landscape and visual effects caused by from the proposed development are not likely to be significant in EIAR terms. Considering the mitigation measures that are proposed, the location of the facility, and design and layout of the facility, it is predicted that residual effects on the landscape and visual amenity would be acceptable and in accordance with the sustainable development of the area.

Analysis, Evaluation and Assessment: Direct and Indirect Effects

8.5.13.14. I have analysed, evaluated and assessed Chapter 18 of the EIAR, and each of the relevant appendices and submissions on the file. I have reviewed Appendix 18.1 (Volume 3) of the EIAR which provides photomontages, and I have physically inspected the subject lands, and around the area, from numerous vantage points both within and surrounding the subject lands. This has duly informed my own assessment for the environmental topic 'landscape and visual', including of potentially sensitive receptors which may be affected by the facility.

8.5.13.15. In summary, I am satisfied that the Applicant has shown a clear understanding of the baseline environment, by way of the methodology they have utilised, and that the LVIA is complete, detailed and accurate. The LVIA clearly identifies the key impacts in respect of the likely landscape and visual effects and the mitigating factors for each viewpoint considered.

8.5.13.16. I note that the County Development Plan identifies four different landscape types, including the 'Plains', which is where the subject site is located. The Plains are described by the CDP as 'working landscapes' supporting settlements, agriculture, and historic sites. The Plains category is split into two types: A1: Lowland Pasture and Arable and A2: Peatlands and Wet Mixed Farmland. Specifically, the site falls within the Templemore Plains of Lowland Pasture and Arable, which is described as a gently undulating area with a low sensitivity to change (Class 1). The CDP under 'Landscape Character Area (LCA) 5: Templemore Plains (Sensitivity and Capacity)' states this is a high capacity/ low sensitivity landscape, i.e. change or development generally acceptable, subject to all other relevant objectives and policies, and that the landscape is capable of absorbing considerable change without detriment.

8.5.13.17. In terms of the LVIA completed by the Applicant, I note that Table 18.10 'Operational Phase Visual Effects Summary' of the EIAR confirms that the Visual Receptor Sensitivity for the eight assessed viewpoints would be low. It also confirms that the predicted effect, prior to mitigation, would be 'none' in seven of the eight viewpoints, with only Viewpoint 6 being recorded as 'low'. The Significance / Quality / Duration of Visual Impact is therefore assessed as 'no change' for all viewpoints with one exception (no. 6), which is 'slight / imperceptible'.

8.5.13.18. As the Visual Impact (Significance / Quality / Duration of) for each of these viewpoints can effectively described as negligible there is no requirement, in my opinion, for significant mitigation or physical screening to block views towards the site, such as the construction of largescale screening berms, for example. I also note that no significant effects have been recorded for the construction and operational phase.

8.5.13.19. The proposed facility would result in limited landscape and visual effects only, in my opinion. This is largely owing to the site's location within a landscape of low sensitivity and the design measures incorporated as part of the design and layout process undertaken by the project team. During the construction phase, the potential for visual impact would be very low or negligible. I consider that views towards the site would be significantly screened by existing vegetation and topography. Whilst the terrain is relatively flat it is also undulating in certain locations. Furthermore, there are some dense bands of existing mature trees around the periphery of the site. It is likely that the construction works, and

associated temporary structures, would have a minor and short-term effect on the surrounding area only. There would be lasting physical alterations of significant in terms of the existing landscape character, in my opinion.

8.5.13.20. Furthermore, once operational, the facility is predicted to result in very limited visual change. I have reviewed the photomontage informing the application and note that the scheme would either not be visible, or perceived as a neutral element, within its existing setting. I would also reiterate that the subject lands are brownfield in nature, having previously formed part of the Lisheen mining complex. Therefore, they previously accommodated an industrial development of some scale and size.

8.5.13.21. I note that only a single viewpoint is anticipated to result in a 'slight' to 'imperceptible' degree of change and even then, the overall effect would be minor, in my opinion (viewpoint no. 6). However, the use of appropriate materials and finishes, together with a suitable colour palette, combined with the relatively modest scale of the facility means that the potential for visual prominence would be minimised. I further note that some structures will be built 3m within a bunded area. This will would further lessen the potential for visual prominence.

8.5.13.22. In conclusion, there would be no significant negative residual impacts, in terms of landscape or visual, in my opinion.

Conclusion: Direct and Indirect Effects

8.5.13.23. In summary, I have considered this chapter and other submissions in relation to landscape and visual impact. I am satisfied that potential effects would be avoided, managed and mitigated by the measures forming part of the Proposed Development and through suitable site conditions. I am therefore satisfied that there would not be any unacceptable direct, indirect or cumulative effects on landscape and visual.

8.6. Decommissioning

8.6.1. The EIAR Addendum states that once the proposed development comes to the end of its operational life (30 years after operations commence) it will be decommissioned. It is anticipated that this process will involve similar works and activities to the construction process. However, it will be undertaken in reverse with the removal of above ground structures coming first, and the structures within the

bund, second. Potential decommissioning phase effects are considered in detail under Table 7.12 of the EIAR Addendum.

8.6.2. I note that the EIAR Addendum Report and Decommissioning Plan (Volume 3, Appendix 6.1) outlines the approach to decommissioning the facility and sets out measures to mitigate potential environmental impacts during this phase. The decommissioning phase is expected to occur in approximately 30 years' time, when environmental standards, regulatory requirements, and best practice may evolve significantly. For this reason, and as stated by the Applicant, the plan is designed to be a live document, which will be reviewed, updated, and finalised by the appointed contractor prior to decommissioning.

8.6.3. I note that the key objectives of the Decommissioning Plan are to:

- Ensure that decommissioning works comply with the mitigation measures set out in the EIAR and NIS.
- Minimise disruption and inconvenience to local landowners and the surrounding community.
- Use appropriately qualified decommissioning contractors with trained personnel.
- Maximise the reuse and recycling of materials where possible.
- Avoid any pollution of the environment, with a particular focus on watercourses and the adjacent Cooleeny Stream.

The Decommissioning Plan also sets out a phasing approach and environment management strategy.

8.7. Interaction of Effects

8.7.1. Review of EIA Topics (Inter-related Effects)

8.7.1.1. Chapters 7 to 18 of the EIAR identify the significant environmental effects that could occur across the topics of population and human health; biodiversity; land, soils and geology; water (hydrology and hydrogeology); air quality; climate; noise and vibration; traffic and transportation; material assets (waste and utilities); archaeology and cultural heritage; landscape and visual. The result of interactive effects may,

however, exacerbate the magnitude of effects, improve them, or have a neutral effect.

8.7.1.2. A matrix is included as Table 20.1 of the EIAR which clearly identifies the potential interactions of effects between the various aspects of the environment and, which I note, have already been assessed in detail by the preceding sections of the EIAR. The matrix highlights the potential for the occurrence of effects whether they be positive, neutral or negative.

8.7.1.3. The EIAR includes a list of effects in Table 20.2 ‘Summary Overview of Anticipated Interactions’. I do not propose to recite these in detail as part of my own report. However, I consider the main environmental components, which could potentially be impacted upon by way of interaction between the attributes, include the following:

- Population and Human Health on:
    - Hydrology and Hydrogeology
    - Air Quality and Climate
    - Noise and Vibration, and
    - Landscape and Visual
- Biodiversity on:
    - Land, Soils and Geology
    - Hydrology and Hydrogeology, and
    - Noise and Vibration
- Land, soils and geology on:
    - Hydrology and Hydrogeology
    - Biodiversity
    - Air Quality
- Hydrology and Hydrogeology on:
    - Biodiversity
    - Land, Soils and Geology

- Air Quality and Climate on:
    - Biodiversity
    - Land, soils and geology

8.7.1.4. As noted above, Table 20.2 of the EIAR provides a summary of the possible interactions between the various environmental factors. There are potential impacts arising between components as noted under specific chapter headings of the EIAR. Having regard to this, I am satisfied, together with the assessment carried out, and the mitigation measures and procedures referenced within the EIAR, that there would be no significant impacts arising in terms of cumulative or interactive effects. I am satisfied that effects arising due to interactions can be avoided, managed and/or mitigated by the measures and procedures which form part of the proposed development and through suitable site conditions.

8.7.1.5. Furthermore, I note that Chapter 22 provides an extensive schedule of mitigation. The measures are grouped according to each environmental topic. Where specific site inspections, and environmental audits, are proposed these will also be set out in the final CMP for the project.

8.8. Reasoned Conclusion on Significant Effects (post mitigation)

8.8.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and information provided by the Applicant, and the submissions from the Planning Authority, prescribed bodies and appellants, in the course of the application, I consider that the main significant direct and indirect effects of the proposed development on the environment will be mitigated as follows:

- **Air Quality and Odour**: Construction activities from concurrent projects may result in temporary increases in dust levels. Mitigation measures, such as dust suppression, will be applied to control these effects, however.
- **Climate**: The proposed development will result in GHG emissions offsets by using feedstock to produce biogas, thereby, avoiding methane emissions and displacement of fossil methane. Therefore, it would help to avoiding the use of a more carbon intensive fuels. The facility has the potential to have a significant positive impact on Ireland's greenhouse gas emissions, in line with

the 2024 Climate Action Plan, and Ireland's obligatory EU GHG net zero target by 2050 trajectory.

- **Noise and Vibration:** Potential exceedance of noise limits at nearby noise sensitive locations (NSL's) during the construction phase, which would require mitigation. However, this has been provided for in the EIAR and CMP. Mitigation during the operational phase of noise focuses on managing noise from truck movements, loading activities, and worker practices.
- **Traffic and Transportation:** Minor cumulative impacts from construction traffic are anticipated. However, I note that no material is intended to be exported from the site and that the number of construction staff will be approx. 20 employees for the duration of the build, which is relatively low. A traffic management plan will be implemented to mitigate congestion. A MMP will be used to minimise unnecessary vehicle trips and to ensure that HGV deliveries to and from the site are safely and efficiently managed.
- **Material Assets**: Potential significant increased demand on waste management services during construction, but regional facilities have capacity to handle additional waste.

8.8.1.1. Having regard to the foregoing, I am satisfied that the proposed development would not have any unacceptable significant direct, indirect, or cumulative effects on the environment.

9.0 Appropriate Assessment

9.1. Screening Determination – Finding of likely significant effects

9.1.1. In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicant, I conclude that the proposed development could result in significant effects on the Lower River Suir SAC (Site Code: 002137) in view of the conservation objectives of certain qualifying interest features of this site.

9.1.2. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] of the proposed development is required.

9.2. Natura Impact Statement (NIS) – Conclusion of Integrity Test

9.2.1. In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Lower River Suir SAC (002137) in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U of the Act was required.

9.2.2. Following an examination, analysis and evaluation of the NIS all associated material submitted, I consider that adverse effects on the site integrity of the Lower River Suir SAC (002137) can be excluded in view of the conservation objectives of this site and that no reasonable scientific doubt remains as to the absence of such effects.

9.2.3. My conclusion is based on the following:

- A detailed assessment of construction and operational impacts.
- The effectiveness of the mitigation measures proposed, including supervision and monitoring and integration into CMP ensuring smooth transition of obligations to the eventual contractor(s).
- The inclusion of planning conditions to ensure the application of these measures.

9.2.4. The proposed development will not affect the attainment of conservation objectives for the Lower River Suir SAC (002137).

9.2.5. Refer to Appendices B and C at the rear of this report for further information.

10.0 Water Framework Directive Conclusion

10.1. I conclude that on the basis of objective information, that the proposed development will not result in a risk of deterioration on any water body (rivers, lakes, groundwaters, transitional and coastal) either qualitatively or quantitatively or on a temporary or permanent basis or otherwise jeopardise any waterbody in reaching its WFD objectives. Therefore, it can be excluded from further assessment.

10.2. See Appendix D at the rear of this report for further information.

11.0 Recommendation

11.1. I recommend that planning permission be granted for the reasons and considerations set out below.

12.0 Reasons and Considerations

12.1. Having regard to the:

- provisions of the Tipperary County Development Plan 2022-2028, including Section 4.3.3, which identifies the subject site and surrounding area as within the National Bioeconomy Campus and Decarbonisation Zone, and policies and objectives which support a low-carbon society, enterprise and rural development, renewable energy initiatives, and the development of the bioeconomy, respectively,
- brownfield nature of the site, which previously formed part of the former Lisheen mining complex,
- provisions of the Climate Action Plan 2025 (CAP25),
- location, nature, size and scale of the proposed facility and established character and pattern of development in the vicinity, including that of other similar type commercial, industrial and waste recycling uses,
- nature of the receiving landscape and absence of any specific conservation amenity designation for the subject lands,
- location and proximity of the proposed development to the regional and national road network, including the R502 and M8 Motorway,
- mitigation measures proposed for construction and operational phases of the proposed development,
- submissions on file including those from prescribed bodies, appellants, and the Planning Authority, and

- documentation submitted with the application, including the Environmental Impact Assessment Report, Appropriate Assessment Screening Report and Natura Impact Statement, additional information, and Addenda,

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

- be in accordance with the provisions of the Tipperary County Development Plan 2022-2028, and with national, regional and local planning policy,
- be in accordance with the planned expansion of the National Bioeconomy Campus, which includes promoting the conversion of natural resources to high value products for the bioeconomy,
- be in accordance with CAP25,
- be acceptable in terms of traffic safety and convenience,
- be acceptable in terms of the protection of ground and surface water,
- not give rise to a risk of serious pollution, or be prejudicial to public health, and
- not seriously injure the amenities of the area or property in the vicinity,

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

13.0 **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 received by the planning authority on the 5th March 2025 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.	a) The proposals, mitigation measures and commitments set out in the Environmental Impact Assessment Report (EIAR) and EIAR Addendum shall be implemented in full as part of the proposed development. b) The proposals, mitigation measures and commitments set out in the updated Natura Impact Statement (NIS) shall be implemented in full as part of the proposed development. c) The proposals, mitigation measures and commitments set out in the Construction Management Plan (CMP) shall be implemented in full as part of the proposed development. **Reason**: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.
3.	The total volume of feedstock accepted by the facility shall not exceed 98,000 tonnes per annum. **Reason**: In the interests of clarity.
4.	a) All construction and operational traffic associated with the proposed development shall access the site via the existing access road to the site only, which is off the L3201 - Local Road, and avoid using the L3202 - Local Road, unless otherwise agreed in writing with the planning authority. b) Clear signage in this regard shall be provided and submitted to the planning authority for written agreement prior to the commencement of the development. **Reason**: In the interest of traffic safety.
5.	Details of the materials, colours and textures of all the external finishes of the proposed development shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. **Reason**: In the interest of visual amenity.

6.	An annual report on the operation of the facility shall be submitted to the Planning Authority and include: a) Details of the source of feedstocks and the final disposal areas of digestate. b) The volume of feedstock and its nature / classification treated in the previous 12 months. c) The volume of digestate produced in the previous 12 months. d) The volume and weight of gas produced in the previous 12 months. **Reason**: In the interests of orderly development.
7.	a) 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. b) Surface water from the site shall not be permitted to drain onto the adjoining public road or adjoining properties. **Reason**: In the interest of environmental protection and public health
8.	Prior to the commencement of development, the developer or any agent acting on its behalf, shall prepare a Resource Waste Management Plan (RWMP) as set out in the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (2021) including demonstration of proposals to adhere to best practice and protocols. The RWMP shall include specific proposals as to how the RWMP will be measured and monitored for effectiveness; these details shall be placed on the file and retained as part of the public record. The RWMP must be submitted to the planning authority for written agreement prior to the commencement of development. All records (including for waste and all resources) pursuant to the agreed RWMP shall be made available for inspection at the site office at all times. **Reason**: In the interest of proper planning and sustainable development.

9.	a) Comprehensive details of the proposed public lighting system to serve the development shall be submitted to, and agreed in writing with, the planning authority, prior to commencement of development. b) The agreed lighting system shall include a recommended strategy for reducing the impact of lighting on bats and be fully implemented and operational before the proposed development is occupied. **Reason**: In the interest of public safety and visual amenity.
10.	a) The landscaping scheme shown on Drwg. PL-0001 Rev P01, as submitted to the planning authority on 2nd November 2024 shall be carried out within the first planting season following substantial completion of external construction works. b) 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 shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority. c) The clearance of any vegetation, including trees, scrub and hedgerows, shall only be carried out between September and February (i.e. outside the main bird breeding season). If this seasonal restriction cannot be accommodated, a suitably qualified ecologist with experience in nest-finding will be required to check all vegetation, including hedgerows, for nests. This shall be permitted to occur only after a licence from the NPWS has been obtained to permit potential disturbance to nesting birds and prior to removal or trimming **Reason**: In the interest of residential and visual amenity.
11.	a) The developer shall engage a suitably qualified archaeologist (licensed under the National Monuments Acts) to carry out pre-development archaeological testing in areas of proposed ground

	disturbance and to submit an archaeological impact assessment report for the written agreement of the planning authority, following consultation with the Department. The testing shall take place in advance of any site preparation works or groundworks including site investigation works and topsoil stripping. The report shall include an archaeological impact statement and mitigation strategy. The report shall include an archaeological impact statement and mitigation strategy. b) Test trenches shall be excavated at locations chosen by the archaeologist having consulted the site drawings and the results of the Archaeological Geophysical Survey carried out under Licence 25R0042. Excavation is to take place to the uppermost archaeological horizons only, where they survive. c) Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record [archaeological excavation] and/or monitoring may be required pending further advice from the Department. d) Any further archaeological mitigation requirements specified by the planning authority, following consultation with the Department, shall be complied with by the developer. No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to the Department and the Local Authority and approval to proceed is agreed in writing with the planning authority. e) The planning authority and the Department shall be furnished with a final archaeological report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the developer.

	Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.
12.	a) The applicant shall ensure there is no deterioration in surface and ground water quality as a result of any pre-construction works and / or the operation of and/or the decommissioning of the development as proposed. b) The applicant shall ensure that groundwater source(s) are protected so as to avoid deterioration in quality arising from the proposed development. The applicant shall ensure that there will be no negative impact to any of Uisce Éireann's (UÉ) Groundwater Source(s) which may be in proximity to the development during both construction and operational phases of the development to ensure compliance with the Groundwater Directive (80/68/EEC). c) All development is to be carried out in compliance with UÉ standards, codes, and practices. d) Design and construction shall be progressed so as not to impact on UÉ Infrastructure. e) Where necessary measures to protect and maintain access to UÉ infrastructure shall be undertaken prior to works commencing
13.	All service cables associated with the proposed development, such as electrical and telecommunication cables, shall be located underground. **Reason**: In the interests of visual and amenity.
14.	Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority. **Reason**: In order to safeguard the amenities of property in the vicinity.

15.	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.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Ian Boyle
Senior Planning Inspector

13th October 2025

Appendix A: Consideration of Local Authority Conditions

Condition	Summary of Condition	Included / Excluded in Schedule of Conditions (Section 12.0 above)
1	Plans and Particulars	Included.
2	EIAR / EIAR Addendum and NIS Mitigation Measures	Included.
3	Limit on feedstock to be treated pa.	Included, but wording amended.
4	Annual report on operation of the facility.	Included.
5	Water supply and drainage arrangements.	Included, but wording amended.
6	COMAH Regulations	Excluded, as already covered by a separate code (the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015
7	Lighting Plan / Strategy	Included, but wording amended.
8	Archaeology	Included, and in accordance with DAU recommended conditions.
9	Details of materials, colours and textures of all external finishes	Included.
10	Service cables to be underground.	Included.
11	Delineation of car parking spaces and inclusion of directional signs, stop signs and road markings.	Excluded, as adequate information shown on Proposed Site Layout Plan (Drwg. No. 2429-DOB-XX-SI-DR-C-0500).
12	Resource and Waste Management Plan.	Included.
13	Landscaping	Included, but wording amended.
14	S. 48 Development Contribution	Included.

Appendix B: AA Screening Determination-Test for Likely Significant Effects

Screening for Appropriate Assessment Test for likely significant effects	
Step 1: Description of the project and local site characteristics	
Brief description of project	The proposed development is for the construction of an anaerobic digestion plant.
Brief description of development site characteristics and potential impact mechanisms	<u>Site Description</u> The appeal site is in a rural area comprising the townlands of Derryfadda, Cooleeny and Killoran in County Tipperary. It is roughly 15km northeast of Thurles and 6km southwest of Urlingford. The subject lands lie within the former Lisheen Mining Complex and can be described as 'brownfield'. The mine previously operated as a lead, zinc and silver mine between 1999 to 2015 and expanded to be one of the largest zinc mines globally during this period. Since its closure, however, the site has been undergoing redevelopment as the National Bioeconomy Campus where there is a focus on developing sustainable and circular economy initiatives. The former mine and its associated lands have been the subject of a restoration plan, approved and supervised by the EPA. The site is largely vacant. There is a presence of some hardstand, artificial surfaces and bare ground on it, together with recolonised scrub, undergrowth and low-lying vegetation in various locations. A mature hedgerow runs along the western boundary. The land is generally flat. The Cooleeny Stream (EPA code: 16C14) intersects the southernmost point of the site where it extends to facilitate a surface water discharge point to this watercourse. A small segment of the stream therefore lies within the red line

	boundary of the site. The stream flow into the Lower River Suir SAC which is roughly 18km downstream. There are no watercourses within the main development area of the site. <u>Industrial Processes</u> The AD plant has been designed to accept and treat a total of 98,000 tonnes per annum of agricultural manure, sludges and crop-based feedstocks. The process involves the breakdown of this organic matter to produce biogas and digestate. The biogas will be used to generate renewable energy and the digestate will be a fertiliser for use offsite. The feedstock will be sourced mainly locally and transported to the facility from within a one-hour travel radius of the site. The process will generate bio-based fertiliser to be applied to agricultural land in the nearby area. The biomethane will be used by several different customers, including energy companies and large industry. The anaerobic digestion (AD) process is briefly described in Section 2.9 above.
Screening report	Yes
Natura Impact Statement	Yes
Relevant submissions	Third parties / prescribed have not raised any specific concerns in relation to AA.

Step 2. Identification of relevant European sites using the Source-pathway-receptor model

One European Sites was identified as lying within the potential zone of influence (ZoI) for the proposed development. The site is detailed in Table 1 below.

I note that the Applicant's AA Screening and NIS Report identifies a single European Site as falling within the ZoI of the proposed development. This information is included in Table 4.2 of their and uses the source-pathway-receptor (SPR) model.

Table 4.1 includes a list of N2000 Sites which are within 15km of the appeal site. However, there is no ecological justification for the inclusion of these Sites for further assessment and I, like the Applicant, have only included those Sites which would a potential ecological connection or pathway in my screening determination below.

European Site (code)	**Qualifying interests[1] Link to conservation objectives (NPWS, date)**	**Distance from proposed development (km)**	**Ecological connections[2]**	**Consider further in screening[3] Y/N**
Lower River Suir (002137)	- Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] - Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] - Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] - Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] - Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] - Taxus baccate woods of the British Isles [91J0] - Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	The Cooleeny stream flows downstream for roughly 18km before reaching the Lower River Suir SAC (002137)	The subject site is outside of the SAC boundary. Therefore, there is no potential for direct effects. However, in taking a precautionary approach, a potential pathway for indirect effects exists. The risks are a deterioration of water quality via a shared groundwater body and from surface runoff containing pollutants (oils, hydrocarbons, etc.) during the construction and operational phases for the proposed development. A complete source pathway receptor link was identified and in the absence of mitigation, there is potential for the development to result in likely significant effects on this European Site. Therefore, the European Site falls within the Likely	Yes

	- Austropotamobius pallipes (White-clawed Crayfish) [1092] - Petromyzon marinus (Sea Lamprey) [1095] - Lampetra planeri (Brook Lamprey) [1096] - Lampetra fluviatilis (River Lamprey) [1099] - Alosa fallax fallax (Twaite Shad) [1103] - Salmo salar (Salmon) [1106] - Lutra lutra (Otter) [1355] **Weblink**: Lower River Suir SAC | National Parks & Wildlife Service (Valid as of 24th September 2025.)		Zone of Impact and is considered further in this assessment.	

Due to the enclosed nature of the appeal site within the former Lisheen Mining Complex, and that the facility would be fully by a new connection to an existing group water scheme called the' Moyne Group Water Scheme', and due to the significant distance between the site and Lower River Suir SAC, I consider that the proposed development would not be likely to generate impacts that could affect anything but the immediate area of the subject site. I note also that the source of wastewater at the site relates to the office and administrative building. The application proposes that the wastewater be routed to a singular domestic pump station to the east of the office building then pumped via a rising main to the primary digester in the bund. The domestic pump station is proposed to be a package plant to be designed by a specialist and will be sized to cater for 6 no. staff. This outfall system would be a fully enclosed system. Therefore, there would be a limited potential zone of influence on any ecological receptors in the vicinity of the development.

I also note that the site is brownfield in nature having previously been developed as a largescale lead, zinc and silver mining facility, but which has been subject to a restoration and decommissioning strategy since its closure in 2015. There are a number of other light industrial, energy and waste recycling facilities which have been developed in recent years in the surrounding area.

I note that several ecological surveys have been undertaken by the Applicant at an appropriate season and frequency, using best practice survey methods. No significant effects are predicted. This is set out in the EIAR section of my report.

Following a review of the residual effects, I consider that the proposed development would not result in any significant effects on biodiversity, flora and fauna, or any other environmental parameters associated with the existing environment. This is provided that the proposed development is carried out in accordance with the mitigation measures and best practice as set out in the EIAR and CMP accompanying the application.

Significant effects on biodiversity are not anticipated at any geographical scale.

Step 3. Describe the likely effects of the project (if any, alone <u>or</u> in combination) on European Sites

The proposed development will not result in any direct effects on and SAC or SPA Sites. Sources of impact and likely significant effects are detailed in the Table below.

AA Screening matrix

Site name **Qualifying interests**	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
	Impacts	**Effects**
Lower River Suir (002137)	There is a potential pathway (i.e. hydrological connection which could act as a route for potential impacts) from the source site. Therefore, the Qualifying Interests of this SAC could be affected. Potential nnegative impacts include impacts on surface water/water quality due to construction related emissions, including increased sedimentation and construction related pollution.	<u>Fauna</u> Potential disturbance to qualifying interests would primarily be during the construction phase of the proposed development. Localised earthworks and excavation works required during the construction phase would occur predominantly on areas of recolonising bare ground which is a habitat of low value and of little ecological importance. <u>Aquatic</u> Aquatic species could be negatively affected through hydrological or water quality impacts, such as increased siltation, nutrient

		release, contaminated run-off and/or dust arising from the construction of the development. Birds The survey work undertaken established the presence of several bird species associated with garden, woodland and farmland areas. The majority of which were common, green listed species. The species identified by the survey are listed in Appendix 2 Birds associated with aquatic habitats in the wider area could also be negatively affected by a proposed development through hydrological or water quality impacts such as increased siltation, nutrient release, contaminated run-off and/or dust arising from the construction of the development. Downstream Impacts There is potential for a range of pollutants to enter watercourses during the construction phase, that may have a significant impact on the habitats and species downstream. Construction phase activities have the potential to contribute surface water impacts to the receiving and surrounding environment, in the absence of mitigation. Without mitigation, the stripping of vegetation, ground disturbance and storage of stripped soils and aggregates near watercourses or their contributory drainage channels, increases the risk of material being washed into watercourses during periods of heavy and prolonged rainfall or flood events, with potential impacts on water quality through increased turbidity levels and sedimentation, as well as the potential mobilisation of a variety of substances that

		may be contained within the soils including the potential spread of invasive species.
	Likelihood of significant effects from proposed development (alone): Yes	
Step 4 Conclude if the proposed development could result in likely significant effects on a European site		
Based on the information provided in the Applicant's AA Screening and NIS report, my physical inspection of the site, a review of the conservation objectives for the site and supporting documentation, I consider that in the absence of mitigation measures beyond best practice construction methods, the proposed development would have the potential to result in significant effects on the Lower River Suir SAC (002137). I concur with the Applicants' findings that such impacts could be significant in terms of the stated conservation objectives of this SAC when considered on their own / in combination with other projects and plans in relation to pollution related pressures and disturbance on qualifying interest habitats and species. I have only included those sites which have a possible ecological connection or pathway in my screening determination below.		
Finding of likely significant effects In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicant, I conclude that the proposed development could result in significant effects on the Lower River Suir SAC (002137) in view of the conservation objectives of a number of qualifying interest features for this site. It is therefore determined that Appropriate Assessment (stage 2) under Section 177V of the Planning and Development Act 2000 of the proposed development is required.		

Inspector: _____ **Date**: _____

Appendix C: Appropriate Assessment – AA Determination

[Template 3: Standard AA Template and AA Determination]

Appropriate Assessment
The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177 of the Planning and Development Act 2000 (as amended) are considered fully in this section.
Taking account of the preceding screening determination in Appendix 2 above of my report, the following is an appropriate assessment of the implications of the proposed AD facility in view of the relevant conservation objectives of the Lower River Suir SAC (002137) based on scientific information provided by the Applicant. The information relied upon includes the following: • Appropriate Assessment Screening Report and Natura Impact Statement • Planning Report • Environmental Impact Assessment Report • Construction Management Plan • Mobility Management Plan • Engineering Services Report • Landscape and Visual Impact Assessment and Photomontage Booklet I am satisfied that the information provided is adequate to allow for Appropriate Assessment. I am satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity are included and assessed for effectiveness.
Submissions/observations None. The third parties have not raised any specific concerns from an AA perspective.

Lower River Suir SAC (Site Code: 002137)

Summary of key issues that could give rise to adverse effects (from screening stage):

i. During the construction phase, **contaminated surface water runoff** and/or an accidental spillage or a pollution event into the relevant watercourses has the potential to have a significant negative effect on the water quality. The effects of frequent and/or prolonged pollution events in a river system can be extensive and far-reaching and can have significant long-term effects.

ii. The proposed works, unless adequately mitigated, could potentially negatively impact on several Qualifying Interests of one Special Conservation Interests SAC (002137), as identified above, and therefore on the Conservation Objectives of this N2000 Site.

iii. No operational phase impacts have been identified.

See Table 5.2 of the Applicant's AA Screening Report and NIS ('Potential Adverse Effects') for further details and information regarding potential adverse effects.

Qualifying Interest features likely to be affected	**Conservation Objectives** **Targets and attributes (summary-inserted)**	**Potential adverse effects**	**Mitigation measures (summary)** NIS SECTION
See list of Qualifying Interests set out in Appendix 1 above.	'To Maintain / restore favourable conservation condition', as applicable. See weblink: Lower River Suir SAC | National Parks & Wildlife Service (Valid as of 24th September 2025.)	Main potential adverse effect is water quality degradation (as described above), namely that from during the construction phase – i.e., contaminated surface water runoff, an accidental spillage, or a pollution event into the relevant watercourse.	The NIS outlines specific mitigation measures in relation to: - **the design phase** and those outlined in the CMP (Section 6.1), - the **construction phase** (Section 6.2), including the appointment of an environmental officer and project environmental consultant, the protection of water quality during construction phase, location and design of the site compound, excavated

			materials, soil and surface water, the implementation of silt fences, cut-off trenches and settlement ponds, storage of construction materials, refuelling of construction plant, storage of fuels/oils and other hazardous materials, spill control measures, use of concrete, construction wheel-wash facilities, weather/flood risk, control of noise, protection of flora and fauna, waste management and wastewater management plan - the **operational phase** (Section 6.3), and - the **decommissioning phase** (Section 6.4)

Note: The above table is based on the documentation and information provided on the file and I am satisfied that the submitted NIS has identified the relevant attributes and targets of the Qualifying Interests.

Assessment of issues that could give rise to adverse effects view of conservation objectives:

(i) Water quality degradation

The water quality of SAC remains vulnerable, and good quality water is required to maintain / restore, as appropriate, the populations of the Annex 1 feature(s) listed above. Water quality degradation is the main risk from unmanaged construction works where silt laden surface water could potentially reach the SAC. Decrease in water quality would compromise conservation objectives for the Annex II species and increased sedimentation could alter habitat quality for flora and fauna.

I note that the SAC is of particular conservation interest for the presence of a number of Annex II animal species, including Freshwater Pearl Mussel, White-clawed Crayfish, Salmon, Twaite Shad, three species of Lampreys - Sea Lamprey, Brook Lamprey and

River Lamprey, and Otter. The Site is one of only three known spawning grounds in the country for Twaite Shad.

A potential pathway for indirect effects on the aquatic and groundwater reliant QIs was identified by the Applicant via a deterioration of water quality arising from surface water runoff/ accidental spills into the relevant watercourse and which would have the potential to have a significant negative effect on water quality.

Mitigation measures and conditions

A deterioration of water quality could result in indirect effects on the above listed aquatic and groundwater reliant Qualifying Interests.

Mitigation Measures and Conditions

The AA Screening Report and NIS outlines mitigation measures to be taken in relation to **the design phase** (Section 6.1 of the AA Screening and NIS), the **construction phase** (Section 6.2), the **operational phase** (Section 6.3) and the **decommissioning phase** (Section 6.4).

Residual Effects

It has been concluded that, in the absence of mitigation, the proposal has potential for significant water quality and/or indirect species disturbance/displacement impacts to the Cooleeny Stream and ultimately to the Lower River Suir SAC to which it is hydrologically connected.

Detailed mitigation measures have been prescribed with regard to the protection of water quality, aquatic habitats and water-dependant species, in particular during the construction phase of the proposal. Other mitigation measures are proposed to reduce any other adverse effects of the proposal.

In summary, and in view of best scientific knowledge, and on the basis of objective information, there is no potential for adverse effect on the identified QIs/SCIs and their associated targets and attributes, or on any European Site. Potential pathways have been blocked through measures to avoid impacts and through incorporation of best practice/mitigation measures as part of the Applicant's NIS and CMP.

In-combination effects

I am satisfied that in-combination effects has been assessed adequately in the NIS. Section 8 of the AA Screening Report and NIS ('Cumulative Impact Assessment') outlines the plans and projects that may have the potential to result in cumulative and/or in-combination impacts on European Sites. It states that a search of the Tipperary County Council planning enquiry system (https://www.eplanning.ie), was carried out on the 14th October 2024.

The Report notes that finalised applications lodged within the vicinity of the proposed development within the last 5 years were examined. These planning applications consisted primarily of industrial and commercial uses for which EIAR reports have been completed and other minor agricultural developments

Table 8.1 of the AA Screening Report and NIS includes a comprehensive list of plans and projects considered during the cumulative assessment. I have had regard to this table as part of my assessment and I am satisfied that the Applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures. Therefore, there is no potential for in-combination effects.

Findings and conclusions

The Applicant determined that following the implementation of mitigation measures the construction and operation of the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Based on the information provided, I am satisfied that adverse effects arising from the proposed development can be excluded for the Lower River Suir SAC (002137). No direct impacts are predicted. Indirect impacts would be temporary in nature and mitigation measures are described to prevent ingress of silt laden surface water and other construction related pollutants via the identified hydrological connection. i.e., the Cooleeney Stream.

I am satisfied that the mitigation measures proposed to prevent such effects have been assessed as effective and can be implemented and conditioned if permission is granted.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the Conservation Objectives of the Lower River Suir SAC (002137). Therefore, adverse effects on site integrity can be excluded and no reasonable scientific doubt remains as to the absence of such effects.

Appropriate Assessment Conclusion: Integrity Test

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Lower River Suir SAC (002137) in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U of the Act was required.

Following an examination, analysis and evaluation of the NIS all associated material submitted, I consider that adverse effects on the site integrity of the Lower River Suir SAC (002137) can be excluded in view of the conservation objectives of this site and that no reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- A detailed assessment of construction and operational impacts.
- The effectiveness of the mitigation measures proposed, including supervision and monitoring and integration into CMP ensuring smooth transition of obligations to the eventual contractor(s).
- The inclusion of planning conditions to ensure the application of these measures.
- The proposed development will not affect the attainment of conservation objectives for the Lower River Suir SAC (002137).

Inspector: _____ Date: _____

Appendix D: WFD Impact Assessment – Stage 1 Screening

WFD IMPACT ASSESSMENT STAGE 1: SCREENING			
Step 1: Nature of the Project, the Site and Locality			
An Bord Pleanála ref. no.	ABP-322641-25	**Townland, address**	The site is in the townlands of Derryfadda, Cooleeny and Killoran in Co. Tipperary. It is roughly 15km northeast of Thurles and 6km southwest of Urlingford. It is within the former Lisheen Mining Complex.
Description of project		Construction of an anaerobic digestion plant.	
Brief site description, relevant to WFD Screening,		The site consists of infill from aggregate materials (soil, stone, and rock) extracted from a permitted borrow area within the wider Lisheen Mine site for the purpose of restoring the Lisheen Mine. Also, surplus suitable material generated during the decommissioning process has been used for this same purpose. The historic mine entrance, now backfilled with concrete, is located in the southern part of the site.	

	The soils beneath the majority of the site are mainly deep, well-drained mineral soils classified as Grey Brown Podzolic and Brown Earths with medium to high base status derived from mainly calcareous parent materials. A narrow band of soils also lies beneath the eastern boundary of the site, crossing the southern portion, and this has been mapped as mineral alluvium. Another narrow band of soils along the southern boundary of the site has been mapped by the GSI as mineral, poorly drained soils classified as Surface Water Gleys and Ground Water Gleys, derived from mainly calcareous parent materials. The GSI (GSI, 2024) mapped soils at the site are shown in Figure 9-4 of the EIAR. The Cooleeny Stream intersects the southernmost point of the site where it extends as a narrow strip of land to facilitate the provision of a surface water discharge point to this watercourse ((River Waterbody Code: IE_SE_16D020100; WFD Name: Drish_40). No designated European Sites apply directly to, or adjoin, the subject lands. The nearest European Site is Galmoy Fen (Site Code: 001858), which is roughly 9.6km to the northeast. The Lower River Suir SAC (002137) is the only site with a potential ecological connection to the appeal site.

Proposed surface water details	The proposed surface water strategy is subdivided into two overall catchment areas for attenuation purposes: • Surface water runoff originating from all areas not directly relating to the biomethane process (Non-Process Area Runoff), such as roofs and entrance roads. • Surface water runoff originating from areas directly relating to the biomethane production process (Process Area Runoff), such as the bund, yard areas and certain internal roads used by process equipment might consist of excess material.
Proposed water supply source & available capacity	Office: A 50mm water supply line will be connected to the site office and administration building from the Group Water Scheme's 75mm mains which is to the south of the site. A letter of consent has been received from the Moyne GWS. I note that the site will have a maximum of six permanent staff, with an estimated daily water usage of 60L per person, totalling 360L per day. This usage has been agreed upon with the GWS. [I note that separate provisions for firefighting will be made through rainwater harvesting and storage.] Proposed Water Supply (Biomethane Process): The proposed process water usage for the biomethane production is 60 cubic meters per day. This water will be entirely supplied through rainwater harvesting and

	storage. The site has defined drainage catchment areas for attenuation purposes, including non-process area runoff and process area runoff, which will collect runoff from roofs, hardstanding areas, and yards. The primary water source will be the process area runoff lagoon, with the non-process area runoff storage basin sized to provide permanent storage of water during drought. In such cases, 2,200 cubic meters of storage (sufficient for 36 days) is available. Proposed Fire Fighting Requirements: The site must meet fire flow requirements by providing a constant flow of 35 l/s for a total of 120 minutes. The site is not served by public water supply infrastructure or hydrants, therefore, this will be achieved using the surface water attenuation storage, which will maintain a permanent water level from harvested rainwater runoff. To meet these requirements, 252m3 of water must be available at all times. The site attenuation strategy includes a permanent water storage volume of 310m3, which satisfies this requirement. In the event of a firefighting emergency, the attenuation basin can be used directly as a draw-down location.
Proposed wastewater treatment system & available capacity, other issues	Foul water will be utilised in the biomethane process as part of a circular usage procedure, eliminating the need for a wastewater outfall from the

	site. Therefore, no effect on the underlying groundwater and receiving surface water bodies in the vicinity of the site will arise from the management of wastewater.
Others?	NA

Step 2: Identification of relevant water bodies and Step 3: S-P-R connection

Identified water body	Distance to (m)	Water body name(s) (code)	WFD Status	Risk of not achieving WFD Objective e.g.at risk, review, not at risk	Identified pressures on that water body	Pathway linkage to water feature (e.g. surface run-off, drainage, groundwater)
1. Cooleeny Stream (River Water Body)	Intersects the southernmost point of the site where it extends as a narrow strip of land to facilitate the provision of a	IE_SE_16D020100; WFD Name: Drish_40	Poor	At risk	Not identified	Yes. Intersects the southernmost point of the site to facilitate the provision of a surface water discharge point.

	surface water discharge point to this watercourse.					
2. The Rossestown River (River Waterbody	Approximately 1.8km northwest of the site at its closest point.	IE_SE_16R010150 (WFD Name: Rossestown_020)	Poor	At risk	Not identified	Yes. Potential connection through underlying karstic ground waterbody.
3. The Derryfadda Stream (River Waterbody)	Approximately 1.3km northeast of the site at its closest point.	IE_SE_16D020070; WFD Name: Drish_030	Poor	At risk	Not identified	No. Upstream of the site.
4. Thurles GWB (Groundwater Body)	Underlying the site.	IE_EA_G_158	Good	Not at risk	Not identified	Yes, underlying the site.
Note: The Applicant's EIAR (Section 10.4.11 'Water Framework Directive, Chapter 10) includes a greater number of waterbodies, and their status, which have a potential hydraulic connection to the subject site. However, I do not consider that there is any ecological justification for such a wide consideration of sites, and I have only included those sites which have a possible ecological connection or pathway for the purposes of assessing the WFD, as above.						

Step 3: Detailed description of any component of the development or activity that may cause a risk of not achieving the WFD Objectives having regard to the S-P-R linkage.							
CONSTRUCTION PHASE							
No.	Component	Water body receptor (EPA Code)	Pathway (existing and new)	Potential for impact/ what is the possible impact	Screening Stage Mitigation Measure*	Residual Risk (yes/no) Detail	**Determination** to proceed to Stage 2. Is there a risk to the water environment? (if 'screened' in or 'uncertain' proceed to Stage 2.**
1.	Surface	Suir (16)	Downstream pathway	Runoff, siltation, pH (concrete), hydrocarbon spillages and leaks. Potential risk of contaminants which enter the groundwater to flow	Standard construction practices and mitigation. See CMP and EIAR (Section 10.7.1)	No. During the construction phase, works will be undertaken in accordance with the CMP.	**No. Screened out.** Good construction management practices will minimise the risk of pollution from

				laterally towards the receiving water supplies. Could lead to potential negative effects in terms of the hydrological and hydrogeological flow regime and water quality.			construction activities.
2.	Surface	Suir (16)	Downstream pathway	As above	As above	As above	**No.** Screened out. As above.
3.	Surface	Suir (16)	Downstream pathway	As above	As above	As above	**No.** Screened out. As above.
4.	Ground	Rossestown River and River Suir, which in turn	Underlying the site	Introduction of contaminants to karstic flow paths, which could lead to potential negative	As above	As above	**No.** Screened out. As above.

		flow into the Suir (16)		effects in terms of the hydrological and hydrogeological flow regime and effect water quality.			
OPERATIONAL PHASE							
1.	Surface	Suir (16)	Downstream pathway	Surface water runoff from roads and the impermeable areas may contain potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments) which	No process water will be discharged from the site, only clean surface water discharge from the non-process area. Standard construction practices and mitigation.	No. During the operational phase, works will be undertaken in accordance with the CMP.	**No.** Screened out. As above.

				could enter the watercourse.	See CMP and EIAR (Section 10.7.2). Surface water will be managed in accordance with SuDS and the GDSDS to treat and attenuate water before discharging offsite.		
2.	Surface	Suir (16)	Downstream pathway	As above.	As above.	As above.	**No.** Screened out. As above.
3.	Surface	Suir (16)	Downstream pathway	As above.	As above.	As above.	**No.** Screened out. As above.

4.	Ground	Rossestown River and River Suir, which in turn flow into the Suir (16)	Underlying the site	Introduction of contaminants to karstic flow paths, which could lead to negative effects in terms of the hydrological and hydrogeological flow regime and effect water quality.	As above.	As above. No discharge to ground.	**No.** Screened out. As above.
DECOMMISSIONING PHASE							
1.	Surface	Suir (16)	Downstream pathway	Runoff, siltation, pH (concrete), hydrocarbon spillages and leaks. Potential risk of contaminants which enter the groundwater to flow laterally towards	Implementing SuDS measures and nature-based solutions to manage runoff and prevent flooding and water pollution.	The mitigation measures as outline in EIAR Addendum, including the implementation of a robust Decommissioning Plan (as	**No.** Screened out. As above.

				the receiving water supplies. Could lead to potential negative effects in terms of the hydrological and hydrogeological flow regime and water quality.		submitted in Volume 3, Appendix 6.1) would prevent any effect on the receiving groundwater and surface water environment.	
2.	Surface	Suir (16)	Downstream pathway	As above.		As above	**No.** Screened out. As above.
3.	Surface	Suir (16)	Downstream pathway	As above		As above	**No.** Screened out. As above.
4.	Ground	Rossestown River and River Suir, which in turn flow into the Suir (16)	Underlying the site	Introduction of contaminants to karstic flow paths, which could lead to potential negative effects in terms of		As above	**No.** Screened out. As above.

				the hydrological and hydrogeological flow regime and effect water quality.			

Inspector: _____ Date _____