

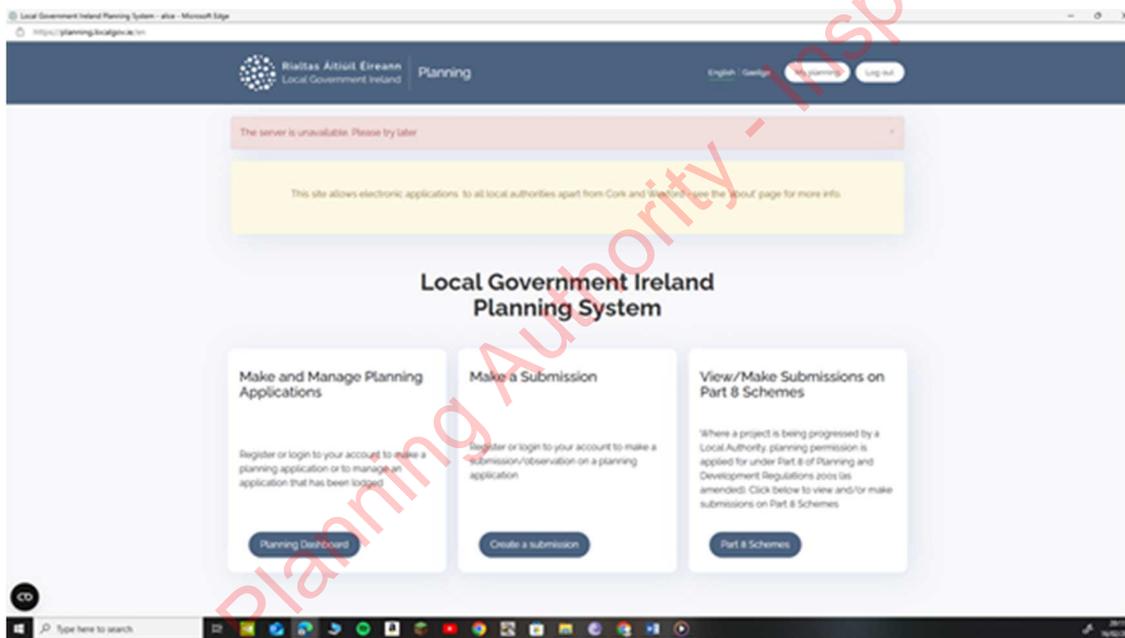
**Collins, Siobhan**

**Subject:** FW: [External] Submission  
**Attachments:** For and on behalf of Killough Community Group TPPN-01760.pdf

**From:** Planning Group <planning@tipperarycoco.ie>  
**Sent:** 17 February 2025 09:14  
**To:** Collins, Siobhan <siobhan.collins@tipperarycoco.ie>  
**Cc:** O'Dwyer, Michelle <michelle.odwyer@tipperarycoco.ie>  
**Subject:** FW: [External] Submission

**From:** alice coman < >  
**Sent:** 16 February 2025 20:16  
**To:** Planning Group <planning@tipperarycoco.ie>  
**Subject:** [External] Submission

**CAUTION FROM TIPPERARY COUNTY COUNCIL IT SECTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Dear Tipperary Coco,  
Please see above screenshot. It states the server is down.

I will attend the office on Monday morning and pay the appropriate fee.

Kind Regards,  
Alice Coman.

Robin Hill  
Gaile,  
Thurles,  
Co. Tipperary  
Eircode E41R2F5  
Date 15 February 2025

Planning Section

Tipperary County Council

Civic Offices,

Emmet Street,

Clonmel

Co. Tipperary

#### PLANNING REFERENCE 2560019

An overall planning application site area of c. 6.3 hectares consisting of a proposed bio-renewables production facility, buffer screening, ancillary facilities and site access via the existing permitted quarry entrance. 2. The proposed bio-renewables production facility (incorporating anaerobic digestion) compound will cover an area of c. 4 hectares. The production facility will convert feedstocks to end of line co-products, namely bio-methane (gas), compressed bio-methane (bio-CNG), carbon dioxide (CO<sub>2</sub>), electricity (green), organic fertilisers (pelleted) and water, with integrated solar energy generation. The adjacent Roadstone Killough Quarry plant will utilise the electricity, bio-methane and water. Pelletised fertiliser will be available for supply to local agriculture and traders off-site. CNG and CO<sub>2</sub> will be pressurised and stored for ongoing draw-off by tankers to points of re-use off-site. Demolition of existing quarry store building (c. 158m<sup>2</sup>) to facilitate the proposed development. 3. The facility will consist of the following elements to be constructed: a) twostorey administration building with (gross floor area 664m<sup>2</sup> and 8.15m in height) to accommodate reception and storage areas, canteen, laboratory, first aid room, control room/electrical switch room, storage room, toilets, offices, conference room, training room and kitchenette, and roof solar panels 315m<sup>2</sup>; b) dry matter reception building (gross floor area 5,215m<sup>2</sup> and 12.7m in height) with roof solar panels 4,000m<sup>2</sup>; c) workshop building (gross floor area 122.1m<sup>2</sup> and 8.9m in height) to accommodate workshop and internal gantry crane, store and office at ground level and office at mezzanine level; d) bio-conversion building (gross floor area 3,257m<sup>2</sup> and 12.5m in height) with roof solar panels 2,400m<sup>2</sup>; e) pre-treatment, equalisation and gas upgrading building (gross floor area 5,685m<sup>2</sup> and 12m in height) to accommodate pre-treatment & equalisation area (3,527m<sup>2</sup>), utilities area (376m<sup>2</sup>), heat recovery plant area (361m<sup>2</sup>), water treatment recovery area (316m<sup>2</sup>), and gas upgrading

facility (1,105m<sup>2</sup>) with roof solar panels 3,850m<sup>2</sup>; f) digestate handling building (gross floor area 692m<sup>2</sup> and 8.6m in height) to accommodate palletiser station/packing station area (150m<sup>2</sup>), solid dryer/vacuum evaporator area (392m<sup>2</sup>) and nutrient adjustment facility (150m<sup>2</sup>); g) warehouse storage building (gross floor area 158m<sup>2</sup> and 11.2m in height); h) bio-filling station building (gross floor area 300m<sup>2</sup> and 9.75m in height) with canopy overhang area of 134m<sup>2</sup>, and externally located biomethane (CH<sub>4</sub>) storage tank (Ø 3m x 11.5m height) and bio-carbon dioxide (CO<sub>2</sub>) storage tank (Ø 2.4m x 9.75m height) to southern elevation; i) odour abatement and pumping station building (gross floor area 448m<sup>2</sup> and 11.25m in height) to accommodate odour abatement system area (412m<sup>2</sup>) and pumping station (36m<sup>2</sup>) with emissions stack (Ø 2.6m x 17.5m height); j) linear generator building (gross floor area 233m<sup>2</sup> and 5.82m in height) with emissions stack (Ø 1m x 17.5m height); k) ESB sub-station building (gross floor area 47.4m<sup>2</sup> and 3.2m in height); l) wheelwash (18m x 4.5m) with associated water top-up sump (6m x 1.25m); m) weighbridge (16.4m x 4.6m); n) surface water storage pond (1,900m<sup>2</sup> x 6m depth) and fire water storage pond (2,800m<sup>2</sup> x 6m depth); o) external boundary paladin fencing (2.28m in height); p) 1 no. water storage tank (internal size Ø 9.4m x 11.23m height and volume 800m<sup>3</sup>); q) 3 no. silage feed soil/mixing tanks (internal size Ø 8.54m x 12.63m height and volume 770m<sup>3</sup>); r) 2 no. fire water supply tanks (internal size Ø 21.35m x 14m height and volume 5,020m<sup>3</sup>); s) 2 no. treated water storage tanks (internal size Ø 27.32m x 14m height and volume 8,230m<sup>3</sup>); t) 3 no. bio-rest tanks (internal size Ø 17.1m x 14m height and volume 3,220m<sup>3</sup>); u) 1 no. cattle manure/slurry silo (internal size Ø 7.5m x 10m height); v) 1 no. pot ale/spent grain material tank/silo (internal size Ø 5.5m x 3m height); w) 1 no. maize silo (internal size Ø 5.5m x 7m height); x) 1 no. chicken litter silo (internal size Ø 5.5m x 10m height); y) 2 no. precast concrete units (below ground) for surface water and effluent tanks (internal size Ø 5.5m x 7m height); z) 1 no. below ground precast elliptical concrete sewage collection tank (3.2m x 6m height and 8,000 gallon capacity); aa) 1 no. gas storage balloon facility (Ø 30.6m x 16m height); bb) 1 no. flare (10m height); cc) Associated and ancillary works including 22 no. staff RECEIVED: 23/01/2025 Tipperary Planning Authority - Inspection Purposes Only! and visitor parking spaces (16 no. standard, 4 no. EV charging and 2 no. disabled parking spaces with EV charging points); bike storage for 10 no. bikes); HGV parking area adjacent to workshop; 2 no. hydrocarbon interceptors; wastewater treatment equipment; bunding and surface treatments; boundary treatments; lighting; services; drainage; landscaping; and all associated ancillary works. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) will be submitted to the Planning Authority with the planning application. An EPA-Industrial Emissions Directive (IE) licence will be applied for to facilitate the operation of the proposed development

**Planning Application: REFERENCE 2560019**

**For and on behalf of Killough Community Group TPPN-01760**

To whom it concerns,

Please find enclosed my submission of objection to the above reference planning application along with my required fee of €20. I have the following observations:

**Pre-planning interactions**

Roadstone held an information session in the Horse and Jockey hotel on the 25<sup>th</sup> of June. A leaflet drop on a small, selected area 10 days prior to the event informed some locals of the information. A small advertisement, unnoticed by most, in the classifieds section of the Tipperary Star meant that most people missed the notification of the event. People as close as 2km away from the proposed biodigester report they were not informed about this session. Locals had no input into any part of their plans, and a model or detail on the proposed development was not presented. It was a drop-in session which meant there was no standard presentation for everyone. Some people reported as having their questions dismissed, being assured that 'this is government policy now' and that this is 'a done deal.' As a follow up, the email [info@roadstone.ie](mailto:info@roadstone.ie) was given as a contact email, but this email appears to be unmanned as no responses to emails have been received. Locals had their names and addresses published on the attendance sheet, without their prior consent to have this done. One person was misrepresented by Roadstone stating they wanted 'the Norway example' on the attendance sheet when in fact they requested information on the same. A meeting would be a better format for disseminating information, with a standard presentation and the opportunity for questions and answers, and genuine engagement with locals. Concrete information on the proposal should be available, not general non-specific platitudes. Handouts with plants and models should have been prepared for attendees, with a follow-up visit to the site. The lack of information was alarming.

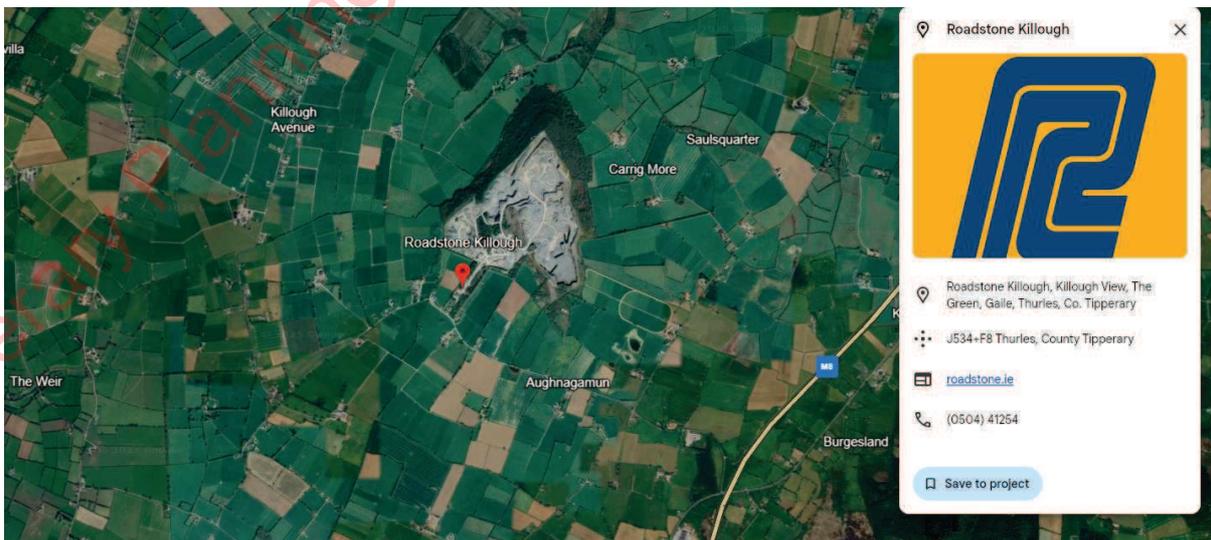
For example, I emailed Roadstone on the 12<sup>th</sup> of October requesting confirmation of their opening hours as they seem to have recently extended them with a view to expanding their activities. When I was advised this was 'the fines plant and our planning allows us to operate 24 hours for the fines business,' my follow up email remains unanswered. Please see appendix for email conversation.



Photo of road entrance to the proposed development and quarry Sunday 16<sup>th</sup> February 2025 at 12.13 pm

Essentially, like my emails, Roadstone have ignored the basic requests of the locals. They have ignored our right to clean air by preferring to pollute, preferring to pay enforcement actions than be compliant, as recorded by Tipperary County Council and other Councils, including the EPA throughout the country. This does not bode well for future stewardship of any proposed biomethane plant. The decimation of unique woodlands on a pNHA is an irreversible damage to the unique environment of Killough Hill. This is evident from a quick look at google earth which illustrates the catastrophic elimination of the woodland in the area at the proposed facility's address.

Roadstone 2025





1985 googlemaps

Many locals made representations to our local councillor, Mr. Sean Ryan, who requested from Roadstone that another date be held in the format of a meeting, with standardised information and a question and answer format. This request was dismissed by Roadstone.

There has been no engagement from Roadstone to answer questions, allay fears or discuss the risks that locals will have to bear due to this proposed application, in addition to the frequency of trucks speeding through our country byroads. For example, should there be an accident, and research indicated explosions to be the most common, being 69.3% of all incidents, reported on

<https://www.sciencedirect.com/science/article/pii/S0925753524001875#:~:text=An%20explosion%20is%20one%20of,explosive%20potential%20of%20these%20gases>, with toxic release (biohazard) being 21.3 % of the accidents, and then Asphyxia at 4%. Of course, there is no data to indicate how a biomethane plant would be affected by a working quarry as there are no examples anywhere in the world that I could find. Even in developing countries, there are no massive biomethane plants on working quarries. The risk is too big, yet this risk is not referenced in the EIAR presented in this application 2560019.

Locals are justifiably concerned re liability should there be non-compliance or accidents in this proposed massive biomethane plant, will it be by Roadstone or the county council? Will Roadstone pay for increases in home insurance premiums that are inevitable when insurers realise there is essentially a giant bomb near people's back doors? These homes lie within the exclusion zone that is noticeably absent from the EIAR. From the information session the applicant noted how one local already had their well contaminated by diesel oil spill from the facility. Locals report cracks in houses, chimneys falling down, continued structural damage from blasting, lack of notification about blasting, yet these concerns were not in any way included in the design of the proposed building and holding tanks. Cracked concrete, dome roofs that could be effected by flyrock, no 5km blasting exclusion zone, the removal of local access to the woodlands, and the very removal of the woodlands have never been

satisfactorily addressed by the applicant. Many local households have a litany of complaints, yet trucks still deliver outside operating hours, no notification of blasting exists and the policy of ignoring emails continues.

### **Water Quality and pollution of water courses**

As a local community affected by this proposed development, we consider that a development of this size will have a significant impact on the quality of Water throughout Tipperary. An aquifer of 'Regional Importance' according to GSI runs under the unique limestone landscape of Killough Hill. In the Application, EIAR Chapter I Introduction 1.22 describes 'Killough Hill is a limestone escarpment which lies within the otherwise flat plain stretching several kilometres to the east and west of the River Suir.' The proximity to the River Suir and the large volume of water that will be used in the production process merits further investigation by Tipperary County Council and Irish water to ensure access to clean water for residents and prevention of further pollution and turbidity for Tipperary Residents. There is also a reservoir in this area. At the information session, the applicant noted how one local already had their well contaminated by diesel from the facility. The applicant does not acknowledge the massive amount of water that will be used in this gigantic operation, and how it will affect water locally and in the county, please see attached appendix 2 which demonstrates the importance of maintaining the fragile regionally important aquifer, which I trust Tipperary County Council will engage with Uisce Eireann / Irish Water regarding this matter. A current tailings pond overflows onto a local landowner's property and the road L1309 when flooded. The proposed plans lack adequate detail and proper planning for the elevations of this site.



The quantity of run-off can not be adequately captured and stored in tanks for reuse, giving the scale of the proposed operation, nor is there any plausible prediction for water use in the biodigestate process. Water that is used in the process will be exposed to bacteria and microbacteria. The introduction of microorganisms and bacteria into the local ecosystem could have catastrophic effects for human and animal health. Mycobacterium would have a devastating effect on the water courses, vegetation and animal life in the area and human health and safety. How nitrates may leach into the water system is also a concern. Fertilisers created are supposed to be an end product in local farms. No cumulative effect has been

given for the extra addition of this fertiliser in this area above what is currently allowed in GLAS plans. Deposition of Nitrates to surrounding soils to produce fertiliser pellets has not been calculated or demonstrated.

Gravity will ensure that water will reach the water table, and consequently contaminate local water systems, seeping through bedrock, flowing on roads and contaminating local and county water supplies- an 80km<sup>2</sup> dispersal of drinking water, including the local Ashill water scheme and innumerable private wells. The 'potable water' produced by the process of biodigestion is not fit for consumption, EIAR, as Roadstone have indicated they will provide bottled drinking water to employees. How then, is it acceptable to use on roads, seeping into water supplies or permeating through a karst landscape with no soil for attenuation for others to consume?

Please note, many households in the area have private wells. This is due to poor water pressure from local authority supplies, as a consequence of constant breakages: simply put, the local road network cannot currently withstand the constant pressure from truck traffic which leads to pipes close to the top of the road breaking frequently, according to Tipperary County Council engineers. The persistent pounding pressure of HGVS regularly leads to water outages, which can be confirmed from Tipperary County Councils records and Uisce Eireann.



Photo showing burst water mains, in the immediate vicinity of proposed development and Killough Quarry.

Increased HGV traffic will be a catastrophe for an already overburdened local road network and infrastructure is unable to continue to meet its demands. Will the applicant commit to testing and upholding current water quality throughout the county where the aquifer supplies water and pay for inevitable remediation when required? It is beyond question the run off and silt from this construction site will contaminate all the natural water courses and flood plains in the area, including the River Suir and the underground aquifer. 'Applications for development shall be accompanied by an assessment detailing potential impacts, mitigation and residual impacts upon groundwater flows and well water supplies.' This has not been satisfactorily included in the aforementioned application by Roadstone. We would also ask

Tipperary County council Planning Authority to request and independent Environmental Impact Study as we believe the study put forward by the applicants is very narrow in focus and not a reflection of the wildlife and ecology of the area.

7 December 2022 16:28

LIVE



As Gaeilge, is é Killough na Cill dha Loch, the church of two lakes. Annually, there is flooding on both the road and land, such that swans include the Killough floodplain as part of their migratory pattern, on turloughs that appear for a few weeks at a time. How will the nitrates produced in the pellet 'fertiliser' effect local water courses in such a wet area? this is a known risk that is not adequately addressed by the applicant and has a scientifically proven adverse impact on water quality. I would request consideration to be held of a long-term study. This application needs to be considered in line with European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No 272 of 2009) W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC W3.

#### **Conflict with the County Development Plan**

According to the Tipperary County Development Plan, particular areas are designated for environmentally sustainable developments that support agriculture, waste management, and energy production. However, the proposed anaerobic digester does not align with these provisions. The site in question is located near residential areas, which is contrary to the

County's guidelines that prioritise safety, noise control, and the minimisation of emissions in proximity to communities. The EIAR does not adequately address how the development would integrate into the designated land use zones or how it would meet the sustainability objectives set out in the County Development Plan. The proposed site is a quiet rural area not serviced adequately with the required infrastructure for a AD of this size. A brownfield site is the only possible location for this proposed development, as rightly proposed in the Pre-Planning meetings by Tipperary County Council. The grants awarded to the Lisheen campus and the investment into the campus to date make this a much more suitable location, with adequate infrastructure without compromising water quality of the entire county.

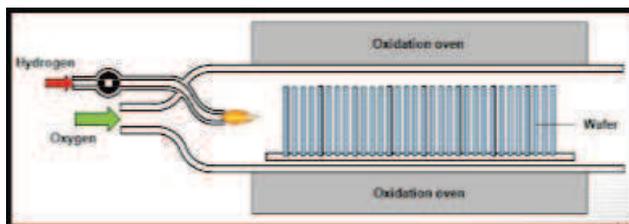
### **Environmental Concerns and Mitigation Measures**

The EIAR fails to fully assess the potential environmental impact of the anaerobic digester, particularly in terms of air quality, water contamination risks, explosive risks due to quarrying, and the long-term environmental effects of biogas production. The County Development Plan emphasises that projects should demonstrate clear mitigation strategies to avoid or minimise environmental degradation. The report lacks sufficient detail on the measures that would be implemented to protect local ecosystems, waterways, and groundwater resources from contamination due to the processing of organic waste. Any 'green' output cannot outweigh the number of trucks using diesel to deliver materials from Carlow, Limerick and beyond. There is no evidence that CH<sub>4</sub> will be used onsite, meaning that it will also have to be moved for consumption, which mitigates any production value. There is no net carbon benefit for this proposed facility as all the input and outputs will be removed onsite, with some inputs travelling from Carlow and Limerick. This contradicts the sustainability objectives of the county development plan, by increasing the carbon footprint of the proposed facility and its ancillary inputs and outputs. Have farmers contracted for supply of grasses been asked what the carbon investment will be of producing grass per acre? How will this aggregate for input throughout the year as silage must be used quickly to maximise its productivity? No yearly input plan was presented in the proposal, nor was any indication of competition for input products with other farming practices or other biodigesters calculated. The miscalculation continues with amount of CH<sub>4</sub> required by the process being underrepresented, and the output is not justified. Furthermore, normally digesters of the applicant's proposed size are usually found in plants where there is a consistent feedstock supply, consistent in both volume and quality, such as a co-operative involved in the production of milk-based products and the by-products (whey etc) where the feedstock which have a high energy value more suitable for digestate input.

**Alarmingly, there is no identifiable 'Zone of Potential Explosion.'** Basically, what this is: if the biogas were to ignite in the digester and cause an explosion, would locals be impacted, or indeed a neighbouring farmer who might be working in an adjacent field. Who will be liable for any accident? The council for granting a licence or the applicant themselves? Should there be a failure in the holding tanks or buildings what will happen the materials it is holding? Due to blasting and environmental factors this is plausible- will the input products flow down the hill or into the water table? How quickly will there be a reaction from a worker monitoring these developments, asleep at a table not on site? And can the Tipperary Emergency Department deal with such a catastrophe in a rural community, especially if it is on call elsewhere?

There is no lightning conductor, worrying considering the height of the buildings and its elevation.

The multiple vents in the buildings illustrate a lack of effectiveness in the process and the potential contamination of the local environment, and the lack of adherence to health and safety protocol. Reception tanks will have venting points. I believe that these tanks should capture all vented materials and have the vented material both filtered and constantly monitored and **placed through a thermal oxidation process** before entering the atmosphere. Please note (especially in the summertime) and depending on the feedstock being stored (cattle slurry for example), you will get fermentation occurring in these tanks and with methane, H<sub>2</sub>S, NH<sub>3</sub> and various other gasses being produced, which need to be captured and filtered not released into the local atmosphere as these plans suggest. As H<sub>2</sub>S gas is highly corrosive on pipes, etc, and pumping air, O<sub>2</sub>, into the digester at below 4% by volume is one way to counter the impact of H<sub>2</sub>S gas. However, if greater than the 4% is applied, it creates a potentially explosive atmosphere in the digester. How they would deal with the H<sub>2</sub>S gas should be part of their EIAR as it is not currently. If they are allowing the H<sub>2</sub>S gas to flow out of the digester as part of the biogas, then those pipes carrying the biogas would have to be lined to prevent corrosion.



*Thermal Oxidation Process, should be put in place for entire proposed development to ensure that an appropriate Air Abatement mitigations are put in place and correctly implemented by the operator.*

To ensure ease of access for external monitoring agencies, I also note that there are no under tank water monitoring piping system in place. Blasting of rock will effect the tanks and concrete foundations of the tanks as it has the houses locally, which are cracked and damaged. It is therefore unsafe to construct these buildings on this quarry site. The seismic resonance of these blasts are very large, and can be reviewed at insn.ie

# Blast log Killough Hill

Date Time (GMT)	Magnitude	Type	Latitude	Longitude	Depth (km)	Region	ID	Rough location of coordinates from Google Maps
13/09/2024	0.9	quarry blast	-52.62	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2024aaog</a>	<a href="https://maps.app.goo.gl/d/5fSstCQ8M3YPCS">https://maps.app.goo.gl/d/5fSstCQ8M3YPCS</a>
04/07/2024	1.1	quarry blast	-52.62	-7.84	0	Co. Tipperary, Ireland	<a href="#">dias2024aata</a>	<a href="https://maps.app.goo.gl/f/SCCL7SEfKGLQ86">https://maps.app.goo.gl/f/SCCL7SEfKGLQ86</a>
26/04/2024	1.1	quarry blast	-52.61	-7.82	0	Co. Tipperary, Ireland	<a href="#">dias2024aaxj</a>	<a href="https://maps.app.goo.gl/4YZWIAEfoSHFvKSTA">https://maps.app.goo.gl/4YZWIAEfoSHFvKSTA</a>
20/02/2024	0.9	quarry blast	-52.61	-7.82	0	Co. Tipperary, Ireland	<a href="#">dias2024aoga</a>	
06/02/2024	1	quarry blast	-52.61	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2024aocn</a>	
01/12/2023	1.3	quarry blast	-52.61	-7.85	0	Co. Tipperary, Ireland	<a href="#">dias2023ange</a>	
20/10/2023	0.7	quarry blast	-52.61	-7.81	0	Co. Tipperary, Ireland	<a href="#">dias2023agor</a>	
29/09/2023	0.7	quarry blast	-52.59	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2023agap</a>	
21/08/2023	0.8	quarry blast	-52.61	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2023agab</a>	
04/07/2023	0.9	quarry blast	-52.61	-7.82	0	Co. Tipperary, Ireland	<a href="#">dias2023agdy</a>	<a href="https://maps.app.goo.gl/EHQDE9sW7UvEVLas">https://maps.app.goo.gl/EHQDE9sW7UvEVLas</a>
18/04/2023	1.1	quarry blast	-52.6	-7.81	0	Co. Tipperary, Ireland	<a href="#">dias2023agom</a>	
07/09/2022	1.2	quarry blast	-52.61	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2022mwc</a>	
02/08/2022	1.2	quarry blast	-52.6	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2022pabn</a>	
13/06/2022	1.2	quarry blast	-52.59	-7.86	0	Co. Tipperary, Ireland	<a href="#">dias2022hmm</a>	
17/05/2022	1.1	quarry blast	-52.6	-7.83	0	Co. Tipperary, Ireland	<a href="#">dias2022gjfj</a>	
27/05/2021	1.2	quarry blast	-52.6	-7.82	0	Co. Tipperary, Ireland	<a href="#">dias2021kbag</a>	<a href="https://maps.app.goo.gl/1mPSixkqpyLkgXh8/">https://maps.app.goo.gl/1mPSixkqpyLkgXh8/</a>
24/03/2021	1.1	quarry blast	-52.59	-7.84	0	Co. Tipperary, Ireland	<a href="#">dias2021faud</a>	
02/05/2017	1.4	quarry blast	-52.63	-7.84	0	Co. Tipperary, Ireland	<a href="#">dias2017agzo</a>	

I'm surprised that a digester of this size /capacity has a gas dome rather than a flat roof. Those roof types are vulnerable to extreme wind damage (cc the dome in Mayo which would be maintained in situ via negative air pressure , similar to the dome on a digester). Considering the strong prevailing wind and the exposed location denuded of trees it is clearly the wrong location on site for this digester.

The proposed application does not identify why it chose this site. It alleges the company will use methane CH4 to power work vehicles, yet no list of work vehicles are given, or any evidence that this machinery specific to this company is actually available. The company does not identify the amount of methane they will use and how this will reduce companies all over CO2 emissions. The proposed application failed to give an accurate appraisal of other possible sites. It also fails to identify how this process will actually decrease the carbon footprint in Tipperary, considering all the movement of materials for input and output of this process.

From an environmental perspective - An anaerobic digester of this size requires quite an amount of very high-quality feedstock. I would expect that such feedstocks as cattle slurry and grass silage will be a requirement to maintain gas production at the required levels to operate the CHP unit, drying and pelleting plant, along with maintaining the required mesophilic (circa 35 to 38 degrees Celsius) expected temperature in the digester will put huge demands on methane production. Roadstone have not quantified and validated their Carbon EQV with regards to the amount of N2O emitted in growing the grass crop (fertiliser, cutting and transporting the grass silage to the digester). It would not be unreasonable to assume that the Carbon footprint would be increased under such activities, which would be contrary to the Paris Accord and the Tipperary County Development plan. Remember that it is the Carbon equivalent ( Nitrous Oxide (N2O) in diesel which is 250 times more polluting than Carbon, methane (CH4 ) which is 25 times more polluting than Carbon) and not Carbon on its own that's the problem, and which are most valid when undertaking Carbon accounting for a

business. Tipperary County Council must perform these calculations which are absent in the submission.

There will be no quicker way to destroy the productive landscape in Tipperary than allowing this proposed digester to happen. One acre of grass removes 120 units from the soil and will have to be replaced. This has not been considered by the applicant, or addressed in their carbon footprint. There is no plan to indicate how the applicant can meet the quantities required for feedstock, grass isn't available all year around, and it will lead to a price rise due to this competition, with farmers lamenting the lack and price of fodder. There will be instability of input, as grass is seasonal, and the application at no point considered secondary digestion. The proposed application has not considered hydraulic retention time. The structure of producing digestate has not fully been thought through.

### **Non-Compliance with COMAH Regulations**

The proposed anaerobic digester handles large quantities of organic waste, which, under COMAH regulations, may involve hazardous substances that could result in major accidents. There are no mitigation measures in place should a leak or spill take place. Furthermore, digestate materials will need to be sterilised to prevent bacteria entering the water stream. There is no evidence in the EIAR that a comprehensive risk assessment has been conducted in accordance with the requirements of the COMAH regulations. Specifically, the report does not address the potential for accidents involving the storage or transportation of biogas or other chemicals used in the digestion process. The community are anxious to determine what insurance policy the proposed development has and what is the value of the risk to ensure there is adequate cover. The plans do not cover a lightning conductor, which is the reason why there was an explosion in Severn Trent, Oxford in October 2023, where the blast rocked homes up to three miles away: <https://www.thetimes.com/article/lightning-strike-causes-explosion-at-oxford-green-power-plant-hrk9zcrvd>

Given the potential hazards, there is an urgent need for a detailed emergency response plan, which is currently absent from the documentation provided. This proposed site is on an active quarry and this report lacks due diligence referencing the associated quarrying and explosive risks. The COMAH regulations require that detailed emergency planning and risk assessments be carried out in consultation with local authorities and emergency services. There is little evidence that such emergency plans are in place, nor that the development would meet the safety standards required for facilities handling major accident hazards. The county council needs to corroborate a plan should catastrophe occur, and outline what additional resources would be needed to bring any catastrophe under control. The EIAR should be amended to include a thorough evaluation of the emergency response measures, including evacuation plans and safety drills, in line with both local regulations and COMAH requirements. The development should be in full compliance with the Tipperary County Development Plan and the COMAH regulations to ensure the safety of the community and the environment.

### **Conflict with Irish National Biomethane Strategy (2024)**

The National Biomethane Strategy (2024) states that anaerobic digesters should be developed in rural areas with stable geological conditions, away from hazardous industrial activities (Department of Agriculture, Food, and the Marine, 2024, p. 11). The proposed site contradicts this recommendation because:

- It shares an industrial zone with high-explosive quarry operations, introducing unacceptable safety risks.
- It is on a fault line- verifiable on gsi.ie
- It lacks a sustainable infrastructure for digestate management, risking runoff pollution into the River Suir, local water used in wells and the unique aquifer providing residents with water for up to 80km.

It is not located in an area with suitable agricultural feedstock availability, further reducing its economic viability. Many local farmers report that they have no additional feedstock or output to supply to the digester. There will be competition with other local digestors for input materials. Should these inputs not be sourced locally, it negates the necessity to grant this proposed anaerobic digester as there will be no benefit for the carbon footprint to bring inputs to the quarry from a long distance away. Furthermore, they remain unconvinced as long-term trials of digestate fertiliser indicate sterilisation of the materials is necessary to prevent ammonia and nitrate leeching in soils and ground water including, diseases and pathogens. There is an opportunity cost, if these materials are supplied to the digester, it will mean that less food is available (animal and human) for an increasing population.

This project fails to meet the strategic objectives set out for anaerobic digestion development in Ireland and the EIAR presented lacks specific and necessary detail.

### **Toward Assessing Farm-Based Anaerobic Digestate Public Health Risks: Comparative Investigation With Slurry, Effect of Pasteurization Treatments, and Use of Miniature Bioreactors as Proxies for Pathogen Spiking Trials**

Stephen Nolan<sup>1,2</sup>, Nicholas R. Waters<sup>1,3</sup>, Fiona Brennan<sup>2</sup>, Agathe Auer<sup>1</sup>, Owen Fenton<sup>2</sup>, Karl Richards<sup>2</sup>, Declan J. Bolton<sup>3</sup>, Leighton Pritchard<sup>4</sup>, Vincent O'Flaherty<sup>5</sup> and Florence Abram<sup>1\*</sup>

### **Ranking hazards pertaining to human health concerns from land application of anaerobic digestate**

Rajat Nag<sup>1\*</sup>, Paul Whyte<sup>2</sup>, Bryan K. Markey<sup>3</sup>, Vincent O'Flaherty<sup>4</sup>, Declan Bolton<sup>5</sup>, Owen Fenton<sup>6</sup>, Karl G. Richards<sup>7</sup>, Enda Cummins<sup>8</sup>

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<sup>3</sup> National University of Ireland Galway, School of Natural Sciences, Galway, Ireland  
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#### **HIGHLIGHTS**

- Health risks from spreading animal waste and/or anaerobic digestate.
- Semi-quantitative screening tool developed to rank pathogens.
- Scoring pathogens on thermal invariability, exposure pathways, severity or human mortality rate in untreated systems.

#### **GRAPHICAL ABSTRACT**



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**Table 3**  
Animal diseases found in Ireland and typical symptoms.  
(Source: DAFM).

Diseases	Pathogens	Relative frequency of population deaths (%) in 2016
<b>Cattle</b>		
Gastrointestinal infection (Enteritis and Parasitic)	Bovine Diarrhoeal Virus, <i>Salmonella</i> , Liver fluke, Rumen fluke, gut worms (stomach and intestinal)	12
Respiratory infections (pneumonia, pleuropneumonia and parasitic bronchitis)	<i>Mycobacterium</i> , Bovine respiratory syncytial virus (RSV), <i>Trueperella pyogenes</i> , <i>Mannheimia haemolytica</i> , <i>Dictyocaulus</i> spp., <i>Mycoplasma bovis</i> , <i>Pasteurella multocida</i> , bovine herpesvirus, <i>Histophilus somni</i>	17
Systemic infection	<i>Escherichia coli</i>	5
Clostridial infection	<i>Clostridium novyi</i> , <i>Cl. Chauvoei</i> , <i>Cl. Sordellii</i> , <i>Cl. perfringens</i> , <i>Cl. septicum</i> , <i>Cl. perfringens</i> , <i>Cl. Botulinum</i>	4
Cardiac infection	<i>Trueperella pyogenes</i>	9.5
Liver disease	<i>Listeria monocytogenes</i> , Liver fluke	3.5
Bovine abortion	<i>Trueperella pyogenes</i> , <i>Salmonella</i> Dublin, <i>Bacillus licheniformis</i> , <i>Listeria monocytogenes</i> , <i>Aspergillus</i> spp.	7.1, 4.8, 4.1, 2.9, 0.6
Bovine mastitis	<i>E. coli</i> , <i>Staphylococcus aureus</i> , <i>Streptococcus uberis</i>	8, 26.8, 12
<b>Sheep</b>		
Parasitic disease	<i>Teladorsagia</i> ( <i>Ostertagia</i> ) <i>circumcincta</i> , <i>Haemonchus contortus</i> , <i>Trichostrongylus</i> spp., <i>Nematodirus battus</i>	13
Respiratory infections	<i>Mannheimia haemolytica</i> , Less commonly ( <i>Pasteurella multocida</i> , <i>Trueperella pyogenes</i> , <i>Bibersteinia trehalosi</i> and <i>Mycoplasma ovipneumoniae</i> )	12
Septicaemia	<i>Bibersteinia trehalosi</i>	15
Clostridial and Kidney disease	<i>Clostridium perfringens</i> , <i>Clostridium difficile</i>	7
Enteric disease	rotavirus and coronavirus	7
Ovine abortion	<i>Toxoplasma gondii</i> , <i>Chlamydia abortus</i> , <i>E. coli</i> , <i>Salmonella</i> Dublin, <i>Trueperella pyogenes</i> , <i>Listeria</i> spp., <i>Streptococcus</i> spp.	40.2, 26.1, 16.5, 0.8, 4.4, 4.0, 2.0
<b>Pig</b>		
Pneumonia	<i>Pasteurella multocida</i> , <i>Mycoplasma hyopneumoniae</i> , <i>Actinobacillus pleuropneumoniae</i> , <i>Trueperella pyogenes</i> , Swine influenza virus	29
Colibacillosis and Enteric infection	<i>E. coli</i> , <i>Salmonella</i> , <i>Clostridium perfringens</i> , <i>Clostridium difficile</i>	22
Septicaemia	<i>Klebsiella pneumoniae</i> , <i>Streptococcus suis</i> , <i>Listeria monocytogenes</i> , <i>E. coli</i>	12
Nervous disease	<i>Streptococcus suis</i>	5
<b>Poultry</b>		
Septicaemia	<i>Escherichia coli</i> , <i>Erysipelothrix rhusiopathiae</i>	26
Digestive	<i>Erysipelothrix rhusiopathiae</i> , <i>Brachyspira</i> spp., adenovirus	6.5
Musculoskeletal	NA	8
Respiratory	Adenovirus	9
Parasitic disease	<i>Dermanyssus gallinae</i>	15

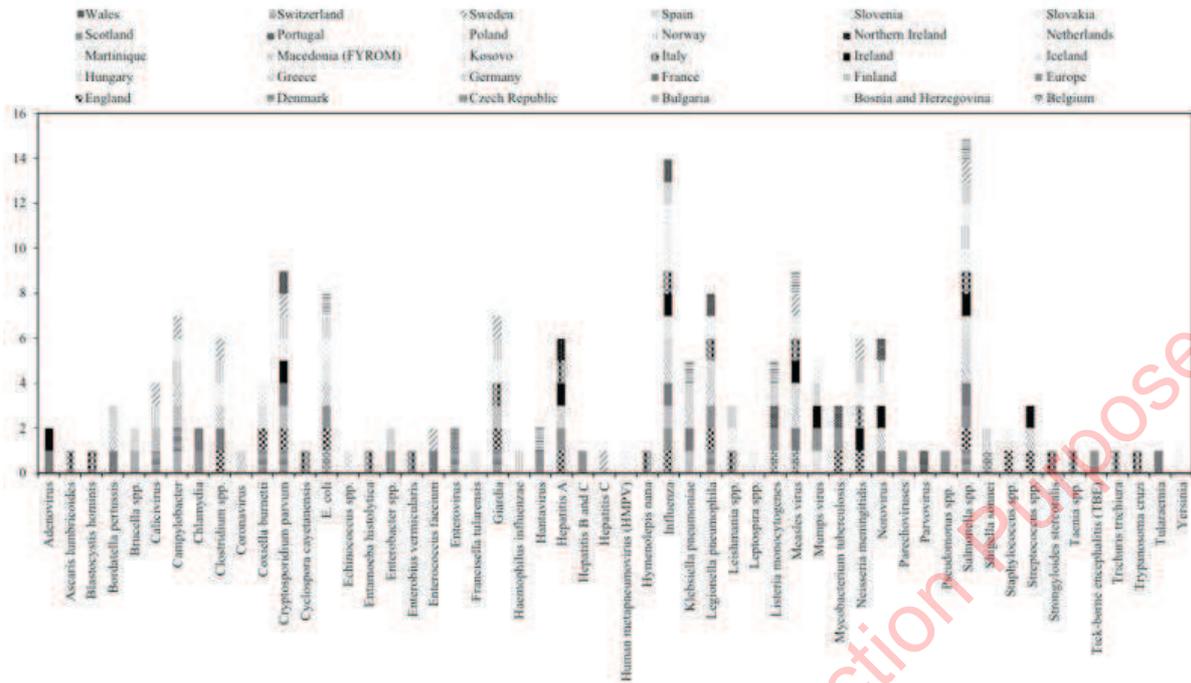


Fig. 1. Observed human disease outbreaks in Europe (last 20 years).

Table 1  
Time-temperature conditions studied.

Number	Name	Description	Time	Temperature
1	M-AD	Mesophilic AD	4 days	37 °C
2	T-AD	Thermophilic AD	4 days	55 °C
3	Pas 1	Irish pasteurisation	4 days	60 °C
4	Pas 2	EU pasteurisation	60 min	70 °C
5	Pas 3	Higher pasteurisation	60 min	90 °C

### Public Safety and Traffic Risks

The increase in Heavy Goods Vehicles (HGVs) transporting hazardous biogas materials will exacerbate existing road safety concerns in the area. The European Road Safety Report (2023) highlights a disproportionately high rate of fatal collisions involving HGVs in rural Ireland (ERSO, 2023, p. 17) The close proximity of two national schools will lead to excessive safety issues with the presence of HGVs onsite.

The quarry already generates high traffic volumes, and adding digester-related transport will further endanger local residents. Tipperary County council should review its allocated movements on quarry business, the direction of the trucks as they come to and from the quarry and factor this into their road appraisal. They should check also the width of the roads which are vastly different to the EIAR submitted. At most points, they are just over 4m, not 6m as suggested in this proposed application. In addition, the motorway is not exclusively used by traffic, and is 8km away not 2.5km as misstated in the EIAR.



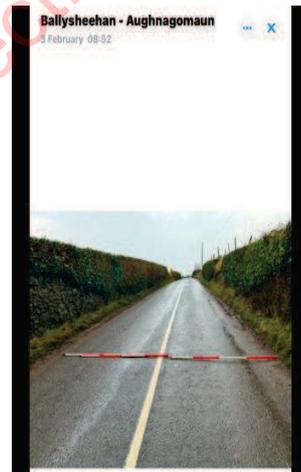
This is an example on the R660 on the Thurles to Holycross Road where slow moving tractors with slurry tanks meant a large queue and road users trying to overtake on a single white line 11/02/25. In fact, this road is much wider and in better condition than the access roads to the quarry.



This is the access road to the quarry, the L1309 8km to the motorway exit. On average it is between 4.3-4.5 metres wide, and the only way trucks can pass one another is to use homeowners' entrances. Considering the high frequency of HGVs on the road utilising the quarry, any additional traffic is a danger that will contravene health and safety directives for residents and road users.



Here is a visual of the same place coming from the other direction. Where road traffic accidents collisions with quarry trucks is a common occurrence, such as the broken mirror on this vehicle. Hopefully these photos will prove that the road L1309 is not 6 metres wide, as presented in the EJAR report, other than perhaps at a junction with another road.



The EJAR states the road is 6 metres wide. All of the above photos are on the L1309 at the same position. At the further point in the road, here is another shot of a vehicle- this is the

position from which the hill was taken in an EIAR. I don't think anyone can legitimately state the road is 6 metres wide.



The Sustainable and Safe Road Transport Strategy (2022) advises keeping industrial transport routes separate from residential areas, which this proposal fails to do (SRTS, 2022, p. 14)

The absence of a dedicated transport risk assessment further demonstrates inadequate planning for public safety. The inclusion of 10 bike spaces for staff puts the lives of workers at risk, as no one can safely cycle on the road due to the traffic associated with the quarry.

The local community has the following observations:

The proposed development would endanger public safety by way reason of traffic hazard due to traffic volumes as well as the inadequacy of the existing local road infrastructure to cater for the additional traffic volumes arising from the proposed development.

The proposed development will further negatively impact on the residential amenity by way of noise, odour and dust generation.

The proposed development by nature of its scale, height and siting would negatively impact on the landscape value of the area and seriously injure the visual amenity of the local area as a result.

The EIAR fails to adequately address the existing use of the site in regard to major accidents.

The principle of the development is not acceptable given the rural character of the area. These issues are further detailed below. We trust these concerns, outlined herein, are fully considered by Tipperary County Council in making their decision on this proposal.

The proposed development would endanger public safety by way reason of traffic hazard due to traffic volumes as well as the inadequacy of the existing local road infrastructure to cater for the additional traffic volumes arising from the proposed development.

As outlined, Killough Quarry has been in operation for a number of decades however, we and many other local residents are now of the view that the existing traffic accessing the site has

increased in frequency to a point that there is a significant impact on the residential amenity of the nearby residents.

The operations at Killough Quarry were most recently permitted under application REF 17/601436, when retention permission was granted for the continued operation of the asphalt mixing plant on site. Under this permission the operation of the asphalt plant and the loading of trucks was permitted from 0600-2000 hours Monday to Friday inclusive.

It is noted under the assessment of application REF 17/601436 that the traffic generations and trip rates will be as submitted in the EIS under planning application REF 14/600501. Under this application it was noted that the existing trip operation at the quarry varied on an annual basis from an average of 52,616 HGV movements annually to c. 213,442 movements. It was calculated that there was at the time of the application a total of 406 vehicular movements from the site daily, of which 286 movements were HGVs. This could be as high as 968 movements per day during peak operating periods. It is noted in the EIS that 80% of traffic generation will be routed north to the M8. Please note motorway access is 8.5 km (Horse and Jockey) 8 km (Cashel) away, not 2.5 as suggested by the EIAR. While permitted currently, and not necessarily under the scope of this application, the planning authority should have regard for the significant amount of permitted traffic entering the site on a day to day basis and the impact such levels have had on the residential amenity of adjacent dwellings.

Further to this, the previous traffic assessment states that 80% of traffic trips to and from the site will be routed to/from the M8. However, on a day to day basis, in excess of c. 40% of HGVs accessing and leaving or accessing the site via the R660. This leads to obstruction of the narrow roadway on a daily basis, with the road width of c. 6m according to the EIAR, but in fact is usually just more than 4 metres wide. Car drivers are required to manoeuvre or reverse to allow HGV to pass. This is also required where HGVs are accessing or leaving the site via the M8 on the roads immediately adjacent to the site. The roads accessing the site are rural in nature and in many areas have little capacity to service the existing HGV traffic.

The adjacent road network has no pedestrian or cycle infrastructure in place. As such, there is no opportunity to safely and comfortably walk or cycle on the surrounding roads due to the existing levels of HGV traffic movements.

The application does not propose any measures to resolve this safety conflict, only to worsen the conditions.

The Design Manual for Urban Roads and Streets (DMURS) is of regard in this instance. The DMURS outline that 'appropriate design response can successfully balance the functional needs of different users, enhance the sense of place and manage speed in a manner that does not rely on extensive regulatory controls and physically intrusive measures for enforcement'. In order to successfully balance the needs of users, a design team must consider both physical and psychological measures which can be put in place to create a safe and successful self-regulating street. In this instance, the applicant has not put forward any measures which would balance the needs of these road users.

Further to this, the DMURS identifies that in retrofit programmes designers must carefully consider the characteristics of the existing street environment prior to implementing a design, and a detailed analysis to establish the levels of intervention and design measures required in any given scenario should be undertaken. In this regard, the planning application fails to

address existing characteristics of the laneway and the potential safety risk associated with its use as a pedestrian access.

The DMURS identify that in regard to footpaths – the minimum width permissible is 1.8m. this width would allow for two wheelchair users to successfully pass one and other. This is the minimum width permissible – greater widths in areas of high traffic are desirable. The DMURS state ‘in a retrofit situation increasing footpath widths should be a priority for designers [...] Increases in width should also be considered as part of a package of facilities, including the provision of cycle lane/tracks, on-street parking and other street facilities’.

Further of note, as per the conditions of application REF 17/601436 works on the site are to be contained from 0600-2000 however, on a weekly basis there are HGVs entering the site post 8pm as late as 11pm on occasions.

Under the proposed application, the EIAR states the proposed development will result during the operational phase in an increase of 116 movements from the site on a daily basis, comprising of 40 staff movements and 76 HGV movements.

The EIAR states that all HGV traffic accessing and leaving the site will be routed via the M8. However, as indicated on a daily basis this is not the existing conditions of the site’s operation. Furthermore, it is noted in the application documents that the feedstocks to be used on the site for the purposes of producing bio-methane will be sourced locally. Based on this it cannot be suggested that all HGV traffic to and from the site would be routed to/from the M8. On this basis, the EIAR fails to adequately assess the traffic implications of the proposed development.

Further to this, the assessment of the traffic calculations is based on the existing ‘worst case scenario’ based on permitted levels of traffic of 470 HGV trips per day. However, based on the previous details submitted by the

applicant’s agent under application REF 14/600501 that the existing trip operation at the quarry varied on an annual basis depended on the jobs the quarry is contracted on. This can result in annual trips of c.52,616 to c. 213,442

movements or 286 to 968 HGV movements daily, this data is provided based on information supplied by the applicant to the agents for the purpose of the EIS prepared under application REF 14/600501.

The EIAR provided under this application does not provide any explanation for the discrepancy in the potential worst case scenario of daily trip generation and instead provides for a potential under calculation of c. 498 daily HGV trips.

This discrepancy in the data provided under this application to the data previously provided to the planning authority draws into question the overall validity of the basis of the calculations in the EIAR as well as the likely, potential and cumulative environmental impacts arising as a result of the development.

The data provided by the applicant clearly illustrates that the operations of the site as currently permitted vary on a day to day basis which has failed to be considered in the traffic assessment undertaken as part of the application.

It is also of note, the traffic counts undertaken as part of the EIAR were conducted over a one-day period, the 28<sup>th</sup> of May 2024. We respectfully suggest that the monitoring system for visitors be used to capture HGV traffic over a prolonged period for example 30 days, not during school holidays and builders holidays. As previously noted, counts undertaken over a period of one day could not accurately reflect the varying nature of the operations on the site. The application in this regard also fails to account for the predominant land use in the surrounding lands of the site - agricultural use. This land use particularly during the months of May, June and July which would be peak silage season, which would result in a significant increase in Tractor movements on the adjacent road network which leads to conflict with the significant HGV traffic on the site.



*(Photo Killough site entrance, note Auto Matic Number Plate Recognition Camera (ANPR) which records the number of vehicles entering and leaving the site daily. Interesting to see Roadstone do not include road traffic accidents related to Killough quarry)*

Chapter 8 of the Tipperary County Development Plan outlines the policies and objectives in relation to Enterprise and Rural Development. In regard to the proposed development, the following policies are of regard to the proposed development: 8-1: a) Support and facilitate proposals for new enterprise development on lands zoned for such uses, in accordance with the Town Development Plans (and any review thereof), the LAPs (and any review thereof) and Settlement Plans as set out in Volume 2.

New developments shall be of a nature and scale compatible with the Settlement Hierarchy, and in accordance with environmental protection standards, the protection of residential amenity and the preservation of road traffic safety. 8-3: Facilitate proposals for employment generating developments of a 'strategic/regional scale' at locations outside of designated lands in settlements, 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;

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,

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). 8-9: Where commercial/industrial enterprises exist as non-conforming but long-established uses, to support their continued operation and expansion, provided such does not result in loss of amenity to adjoining properties, adverse impact on the environment, visual detriment to the character of the area or creation of a traffic hazard.

Based on the above as outlined, the application for the proposed development fails to respond to the existing traffic generation as a result of permitted operations on the site. On this basis, the conclusions of the EIAR in regard to traffic can not adequately be concluded to be accurate having regard to the information previously provided to the planning authority. On this basis, the mitigation measures proposed, conclusions reached in regard to potential environment impacts and cumulative impacts cannot be considered to accurately represent the impacts arising as a result of the proposed development.

Further to this, the development fails to respond to the measures required as outlined in the DMURs and is contrary to the policies and objectives of the Tipperary County Development Plan in regard to Enterprise and Rural Development by nature of the scale of the development in a rural area and the traffic generation and associated traffic hazard as a result of the development.

**The proposed development will further negatively impact on the residential amenity by way of noise, odour and dust generation.**

The existing quarry operation has a negative impact on our residential amenity on a day to day basis by way of noise/dust generation as well as general nuisance arising as a result of the operation of the quarry and tarmacadam facility.

We submit that as evident on the planning files of previous permissions at the site that Roadstone have submitted noise and dust monitoring to the planning authority on an ongoing basis. While the data provided may indicate that the existing quarry is operating within the permissible parameters, we would note that these levels continue to negatively impact on our

residential amenity. The removal of trees from the site has exacerbated the dust and air pollution impact on all locals.

Further to this, the ongoing noise of the adjacent quarry has become a significant concern, with noise generation having increased over a number of years. As outlined previously in regard to traffic, the existing levels of HGV movements to and from the site varies on a daily basis, however with each movement there is an associated noise and nuisance generation. As indicated, HGVs are frequently entering the site at 6am or later than 10pm. This has impacted on our ability to sleep and enjoy the very basic level of residential amenity, a comfortable night's sleep.

As part of the application Chapter 10 of the EIAR relates the impacts of Noise and Vibration as a result of the proposed development. The EIAR notes the proposed development will result in a number of additional activities which will generate noise impacts such as: vehicular movements; construction work and; the operation of the biogas facility and associated plant. The EIAR baseline noise level and noise calibration equipment need to be questioned. The assessment notes that during the data collection period, noise from the quarry operation was audible during both daytime and night time for local property, typically ranging from 47 decibels during the day to 35 decibels at night. While the assessment notes that these levels are in compliance with EPA guidance, it is noted that it is only average noise levels provided in the assessment rather than an appended data collection, which we would believe would show that there are noise levels in excess of these average levels.

In regards to the assessment of the noise generation as a result of the operational phase of the development, the EIAR states that HGV movements have been modelled on an estimated quantity of 33 movements per day. However, this contradicts the expected levels of HGV movements provided under the traffic and transportation assessment of the EIAR which provides for 116 movements from the site on a daily basis, comprising 40 staff movements and 76 HGV movements. This error would undermine the assessment of the impacts of the proposed development in regards to noise and also undermine the conclusions of the EIAR in regard to the in combination effects of the proposed development as well as any mitigation measures proposed.

It is also of note that the noise assessment does provide for monitoring on days where blasting is occurring on site.

Blasting as outlined happens on a regular basis without prior notice to residents. In the moments prior to the blast there is an audible alarm followed by the blast. As noted, there are regularly a number of blasts on site. The failure to include this noise data in the noise assessment results in the assessment failing to accurately illustrate the baseline noise environment at the site and surrounding environment.

Further to this, the noise assessment has failed to address the potential use of the onsite flare associated with the biogas facility. The 'Flare' onsite is an emergency measure which is utilised to mitigate against a potential explosion as a result of an overproduction in gas or another onsite disaster. The flare releases gas into the atmosphere and burns off the base immediately, resulting in a large and very audible blast sound.

The noise impact assessment has not provided any data to suggest that the use of this flare system has been included in any calculations provided within the assessment. While it could

be suggested that this is an emergency measure, the audible levels of the use of the flare should be accounted for in the assessment and a data based evaluation of the potential levels of frequency the flare may be required.

The lack of inclusion of this data, whether intentional or not, would in our view preclude the planning authority from having sufficient data to conclude that the EIAR is sufficient in concluding that there will not be any undue impact on the environment. The EIAR did not include the impact of the flare on protected species in the area.

We acknowledge that there is an existing noise environment associated with this use and that the business is subject to conditions relating to noise in order to protect the adjoining residential amenities as best as practicable based on the information provided to the planning authority. This is a residential area not an industrial one. However, based on the inaccuracy of the material provided in the noise assessment in regard to HGV movements, existing baseline noise data and the omission of the noise associated flaring, the information provided to the planning authority cannot and does not demonstrate sufficiently that there will not be a determinantal impact to the amenity of the area by reason of excessive additional noise emissions, including for tonality and impulsivity.

In this regard, objective 11-18 of the Tipperary County Development Plan, is of relevance. And in our view, the proposed development would contravene this objective.

11-18: Ensure that new development does not result in significant noise disturbance and to ensure that all new developments are designed and constructed to minimise noise disturbance in accordance with the provisions of the Noise Action Plan 2018 and relevant standards and guidance that refer to noise management.

### **Odour and air quality**

Further to this, there is significant concern in regard to odour generated as a result of the proposed development, both while being processed on site and during transport to the site.

The EIAR outlines the impact of the proposed development on the local air quality and odour emissions. It was with much surprise that this chapter does not include any testing of air sampling from the site or immediate environs - instead, the assessment relies on third party data collected from air quality monitors from Clonmel and Tipperary. The absence of any air quality data directly collected from the site results in the presented 'baseline data' simply not accurately indicating the existing conditions. It must be said, the exclusion of this data would imply that the data has not been included as it would likely indicate poor existing conditions as a result of the operation of the quarry. The absence of any baseline air quality data from the site should preclude the planning authority from granting planning permission for the development. The absence of this data results in any calculated/cumulative impacts identified not being accurately calculated. Further to this, any mitigation measures proposed are undermined.

In regard to the odour generation as a result of the proposed development, there is significant concern in regards to the odour output as a result of the bio-methane production as well as the feedstock to be utilised in the process. It is identified that the site will have an annual intake of 105,000 tonnes of silage; slurry; poultry litter; maize; and brewery residues.



## Visual Amenity

On this basis, it must be concluded that proposed development would seriously injure the amenities of properties in the vicinity by reason of noise and odour generation and general disturbance, and would depreciate the value of properties in the area. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

The proposed development by nature of its scale, height and siting would negatively impact on the landscape value of the area and seriously injure the visual amenity of the local area as a result.

In terms of visual impacts, it is submitted that the development of the bio-methane production facility and associated infrastructure of the scale proposed on elevated and visually prominent lands would result in a significant loss of visual amenity and would result in the significant degradation of the wider landscape area and Killough pNHA and the visual view of Killough hill for the world heritage site “The Rock of Cashel”.

Furthermore, it would set an undesirable precedent for similar large scale development proposals in the area. It is therefore considered the proposed development would materially contravene the policies and objectives of the Tipperary County Development Plan (2022) and would be contrary to the proper planning and sustainable development of the area.

As per the Landscape Character Assessment (LCA) prepared by Tipperary County Council as part of the Development Plan, the site of the proposed development is within the wider landscape character area identified as the ‘Plains’, described as ‘working landscapes containing most settlements and services as well as large continuous areas used for pasture, tillage and peat harvesting. This landscape also contains major rivers and many historic sites’.

The site falls within the specific LCA Area of the River Suir Central Plain. The LCA outlines that this landscape area ‘is the most extensive and coherent landscape area in the county. It forms the large central area of the county [...] it is characterised by its rich and productive agricultural lands and rolling landscape’. It is a SAC and pNHA.

The LCA identifies principals for the management of this landscape area, indicating that there are a range of areas with varying capacities to absorb development. However the LCA identifies that the consideration of the appropriate development in these LCA Areas will be guided by a developments overall aim of facilitating the ‘optimal use of the area’s agricultural and settlement development values should be the ultimate objective in the management of this area, along with the conservation and improvement of the visual and environmental quality of the area. This is a residential not industrial zone.

Further to this, the following objectives of the Development Plan are of relevance:

11-1: In assessing proposals for new development to balance the need for new development with the protection and enhancement of the natural environment and human health.

11-3: Ensure the conservation and protection of existing, and proposed NHAs, and to ensure that proposed developments within or in close proximity to an existing or proposed NHA would not have a significant adverse impact on the status of the site as described.

11-16: Facilitate new development which integrates and respects the character, sensitivity and value of the landscape in accordance with the designations of the Landscape Character Assessment, and the schedule of Views and Scenic Routes (or any review thereof). Developments which would have a significant adverse material impact on visual amenities will not be supported.

11-17: Ensure the protection of the visual amenity, landscape quality and character of designated 'Primary' and 'Secondary' amenity areas. Developments which would have a significant adverse material impact on the visual amenities of the area will not be supported. New development shall have regard to the following:

- a) Developments should avoid visually prominent locations and be designed to use existing topography to minimise adverse visual impact on the character of primary and secondary amenity areas.
- b) Buildings and structures shall integrate with the landscape through careful use of scale, form and finishes.
- c) Existing landscape features, including trees, hedgerows and distinctive boundary treatment shall be protected and integrated into the design proposal.

The EIAR which accompanies the application includes a Landscape Visual Impact Assessment (LVIA) however, the assessment fails to adequately address the above referenced objectives and contravenes the policies and objectives of the Tipperary County Development Plan. It is clear from the LVIA that the views prepared have been carefully selected by the applicant to ensure to present the least impactful views. The viewpoints appear to be strategically placed in areas with more tree/hedge cover along the road.

It is also worth noting that the photomontages included in the LVIA are poorly presented making the legibility of these images very poor, if not impossible. They are a birdseye view and do not accurately represent the scale of this proposed facility. This in itself makes the assessment of the scale of the development challenging. The viewpoints selected in the Landscape and Visual Impact Statement are not representative of the full extent of the exposure of the development to our local community.

The Photomontages demonstrating the visual impact of this proposed development are not in line with the Guidelines for Landscape and Visual Impact Assessment (3rd Edition). Relevant Extract from these guidelines;

“Photomontages should be based on sufficiently high-quality photographs that are representative of the view in question, show appropriate (and justified) levels of visibility, show relevant components of the development as realistically as possible, and be printed at an appropriate scale for comfortable viewing at the correct distance”. The views included within the photomontages are more strategically placed and do not accurately represent the true impact this development will have on our local community.

Due to the scale of the proposed development and its location within the site, it is evident that the proposed development will have an overbearing and significant impact on the immediate landscape of the Killough area.

It is further of note that the application is scant in regards to any significant landscape proposals which could attempt to mitigate against the scale of the development but instead relies on the existing, poorly implemented landscaping as illustrated above. Further to this, any efforts to provide screening will not fully mitigate the visual impact across all areas. Additionally, it will take years for the new species to grow to provide any adequate mitigation.

To conclude in this regard, it has been clearly demonstrated that the proposed development fails in any way to respond to the receiving landscape environment and as a result represents a development of a significant scale, in a prominent and visually exposed location. On this basis, it can be concluded that the proposed development is contrary to objectives 11-1; 11-3; 11-16; and 11-17 of the Tipperary County Development Plan, the development by nature of its scale and location would result in the degradation of the visual amenity of the immediate and wider landscape and undermine the visual and residential amenity of our property.

### **Observations in the EIAR**

The EIAR fails to adequately address the existing use of the site in regard to major accidents.

The EIAR identified that given the quantities of biogas and biomethane being produced and stored on the site, the development will be regulated, if permitted, under the EU Directive 2012/18/EU which regulates development which regulates the control and operation of developments which have the potential to result in a significant major accident.

There is no lightning conductor included in the plans, worrying considering the recent explosion due to lightning in Oxford, and indicative of the lack of familiarity with the design of this proposed facility.

The EIAR identifies the development as would be classed as a Lower Tier Seveso site.

In the consideration of the risk of a major accident as a result of the development, the assessment fails to address in any way the existing use of the site and most notably the blasting of rock on site and the compatibility of such volumes of flammable gas being stored on site when such activities are taking place.

Additionally, the assessment does not address the vibrations and the implications of the consistent vibrations from the quarrying activity on the gas facility.

It is also of note that no detail is given on a potential blast radius should such a disaster occur. Given the proximity of the development to residential developments and the Seveso classification, this should be considered.

Based on the above information, the EIAR fails to adequately address the nature of the use as permitted on site and fails to adequately present the potential risk arising. On this basis, the EIAR cannot conclude that the proposed development will not give rise to any undue impacts to the environment or population in regard to the potential risk of a major accident.

The principle of the development is not acceptable given the rural character of the area.

The application documents submitted fail in any way to address the principle of developing the facility at the proposed location.

The application has, skillfully, been presented on the basis that the development is required for Roadstone to offset their carbon footprint and meet their goals in regard to climate change, and that the development is linked and required to sustain the operation of the existing quarry. However, we have previously noted

This however fails to address the nature of the development, which at its core, is a commercial development -

Roadstone may be using the gas produced for fuelling operations on site but will also sell the fertiliser produced. It is also not clear if Roadstone will be paid or will be purchasing the feed material. This nevertheless, is a commercial activity. In fact, based on the inputs of other digestors, it is likely that in excess of 400 tonnes of slurry a day could be required. The EIAR provides no specific information or plans, and has a concerning number of obtuse statements. I would request that the applicant quantify the amount of carbon N20 diesel oil and nitrous oxide that will be used to supply the crops to feed the digester, and these should be included in the EIARS. It is evident if the County Council grants permission they will increase the carbon footprint in the area, through the activities of the digester, the farmers use of fertiliser to maintain a constant supply of grass, to harvest and deliver the inputs and transport into the plant. It is the county council's responsibility to ensure this is accurately delivered. The models used to project the productivity of the biodigester are based on European models. In the Northern Hemisphere, in Ireland, Maize has 30 % less dry matter than warmer climes. The quantity of grasses and crops is better in other European countries and this application needs to be contextualised with local conditions in mind.

The use of turbines or solar panels would offset the emissions on site if sought however, there is no commercial output on this for the applicant. We have already considered how the delivery of input and output materials will increase the carbon footprint of the county and this is neither a green energy proposal or strategic infrastructure.

Further information on the filtering system to capture H2S is essential.

In this regard, the application should instead be considered as and assessed as an intensification of use.

It is of note that the application site is not within any settlement and does not have any active land use zoning as per the Tipperary County Development Plan. As such, the application should be considered under the prevailing land uses in the area which are primarily agricultural due to the rural nature of the site. On this basis, the existing quarry operation would be considered a long-established non-confirming use. In this regard objective 8-9 of the Plan is of relevance. This states 'Where commercial/industrial enterprises exist as non-confirming but long-established uses, to support their continued operation and expansion, provided such does not result in loss of amenity to adjoining properties, adverse impact on the environment, visual detriment to the character of the area or creation of a traffic hazard'.

This objective seeks to support the continued operation and expansion of such non-confirming uses where this does not result in the loss of amenity or the visual detriment of the character of an area, or the creation of a traffic hazard. As has been outlined throughout this submission, it is evident that the proposed development is contrary to this objective.

Of further note in this regard is Policy RE5: Mixed Biomass Processing Installations, which identifies what may be considered suitable sites for the development of such facilities. It states:

It is the policy of the Council to support mixed biomass processing (using a range of technologies) and using mixed feedstock (including biological waste) imported from surrounding areas on suitable sites.

A. Mixed bioenergy plants should be located close to the energy source and the point of demand, where they can be served by a transport network with sufficient capacity to safely absorb increased traffic movements and where waste heat can be used. Such facilities will be assessed against the ability of the receiving environment to accommodate them without causing an adverse impact on residential or environmental amenity.

B. Proposals for bioenergy in Tipperary that will cater for regional energy demand or feedstocks imported from the region will be assessed for compliance with appropriate regional plans, strategies and policies.

As has been outlined, the proposed development will result in a significant intensification of the already severe traffic conditions, which sees an excessive number of HGVs accessing the site on a daily basis. The road network cannot support a further intensification of this.

Additionally, due to the siting of the proposed development and scale, the development would result in an overbearing visual impact on the landscape.

As such, the proposed development would have an adverse impact on the residential amenity and environmental amenity of the site and immediate environment. As such, the principle of the development is not established and is contrary to policy RE5 and objective 8-9 of the Tipperary County Development. The proposed development would as such, be contrary to the proper planning and sustainable development of the area.

### **Destruction of Habitat and Protected Species Risks**

The EIAR Biodiversity Report (Chapter 5) highlights that the quarry location overlaps with important ecological features, including natural habitats, water-dependent ecosystems, and rare species<sup>27</sup>. EIAR Chapter 5 Loss of Woodlands and Hedgerows: The proposed development will remove semi-mature trees and scrub vegetation<sup>27</sup>. EIAR Chapter 5 -which serve as habitats for bats, birds, and pollinators. Risk to Protected Species: The Tipperary Biodiversity Plan (2025-2030) identifies several species of concern, such as the White-Clawed Crayfish, Atlantic Salmon, Freshwater Mussel, all of which are highly sensitive to pollution County Tipperary Biodiversity plan. Disturbance to European Protected Sites: The Lower River Suir Special Area of Conservation (SAC) lies within the zone of influence of the proposed development, and any contamination from effluent or run-off will severely impact its ecosystem County Tipperary Biodiversity plan. These impacts contradict Tipperary County Development Plan 2022-2028, which mandates strict biodiversity protections for developments near protected habitats and SACs County Tipperary Biodiversity plan. The Cabragh wetlands are a mere 4.3km away from this site.

## Impact on Protected Species

The EU Birds and Habitats Directives (92/43/EEC & 2009/147/EC) prohibit developments that pose air pollution risks to protected species (European Commission, 1992, p. 12). The EIAR does not include an air quality impact assessment on biodiversity, violating these directives. The EIAR included no effects of flaring on bat and bird populations in the area.

The surrounding area supports multiple protected species, including:

- Common kestrel (*Falco tinnunculus*) – Exposure to airborne toxins can impair respiratory function (Roadstone Ltd., 2024, p. 10-5).
- Eurasian badger (*Meles meles*) – Susceptible to methane exposure and habitat degradation (Roadstone Ltd., 2024, p. 10-8).
- Pine marten (*Martes martes*) – Declining populations are highly sensitive to VOCs and odorous emissions (Roadstone Ltd., 2024, p. 10-12).
- Owl, buzzard, peregrine falcon, shrew, lizard, among other species recorded at biodiversity Ireland.

Killough Hill is home to many uncommon and some rare plant species. For example: *Ajuga reptans* (Bugle); several species of orchid e.g. *Anacamptis pyramidalis* (Pyramidal orchid) *Dactylorhiza fuchsii* (Common spotted orchid), *Epipactis helleborine* (Broad leaved helleborine), *Gymnadenia conopsea* (Fragrant orchid), *Neottia ovata* (Twayblade orchid), *Ophrys apifera* (Bee orchid), *Orchis mascula* (Early purple orchid). *Erigeron acris*, (Blue fleabane) once on the protected species list, as well as *Gentianella amarella* (Autumn gentian) a species on the near threatened in the Red Data List of Vascular Plants 2016. This is a subspecies for which Ireland possibly holds more than 25% of the European population.

Woodland species such as *Sanicula europaea* (Wood sanicle), *Ranunculus auricomus* (Goldilocks) *Galium odoratum*.(Woodruff) have been recorded from Killough Hill.. *Carlina vulgaris* (Carlina thistle), *Carex caryophyllea* (Spring sedge) *Rubus caesius* (Dewberry ) recorded also from the floor of the quarry. *Ophioglossum vulgatum* (Adders tongue fern) has also been recorded.

This company, Roadstone, has shown little regard for stewardship or issues currently under consideration regarding a Proposed Natural Heritage Area (PNHA). They have not engaged with the public adequately, nor will they engage with the National Parks and Wildlife Service.

In the National Biodiversity plan the key finding was loss of Diversity, and as The Tipperary County Biodiversity Action Plan has outlined 5 aims to improve the level of diversity (see below ) it would be a good start to consider this application in view of its possible threat to Killough Hill. The site has been identified and the list of plants supplied is evidence of the richness of the habitat 1) Increase awareness of biodiversity and implications of its loss 2) Embed biodiversity into all local Authority Policies and Plans 3) Identify locally important habitats and species 4) Develop plans to restore habitats 5) Support communities with biodiversity conservation projects.

In the EIAR provided by SLR Environmental Consulting (Ireland) Ltd, it is noted

‘An Environmental Impact Assessment Report (EIAR) “means a statement of the effects, if any, which the proposed development, if carried out, would have on the environment”. As such, it is a systematic analysis and assessment of the potential effects of a proposed project on the receiving environment.’

This clearly infers that a fair, scientific and unbiased assessment of the area will be conducted.

Later in the report:

Field Survey(s)

‘5.32 An ecological field survey was conducted on 07 August 2024 by SLR Ecologist Lorcan Kelly to determine the baseline ecology and to determine its ecological value. Habitats within the study area were classified using ‘A Guide to Habitats in Ireland’ (Fossitt, 2000) and were assessed if they comprise Annex I habitats under the Habitats Directive. The dominant plant species present in each habitat type were recorded during the field surveys and this is considered sufficient to allow accurate classification of the habitats present’

In one day alone, one person was somehow expected to classify, document and assess every species of invertebrate, mammal, bird, fish, plant and fungi in the area using a guidebook dated from 25 years ago? This is an unheard feat that would put Darwin himself to shame.

‘5.34 Incidental sightings or evidence of birds, mammals or amphibians were also noted during the habitat survey and the habitats within the study area were evaluated for their potential to support protected species’

Incidental is a word not often used in any scientific survey as it means less important than the thing something is connected to or part of. Anyone who has studied ecology understands that the smallest niche in nature is a key part of the web of life. Point in case is the Freshwater Pearl Mussel, a critically endangered umbrella species and bio-indicator of clean water, just 3.5 km from the proposed site. No organism is deemed less important, only less researched and understood.

‘If a river’s natural self-purification process, for example, is disrupted by pollution or over abstraction, some or all beneficial uses may be impaired or lost. It is important, therefore, to keep ecological disruption to a minimum and to maintain the aquatic ecosystem in a healthy, functional condition’ (catchments.ie, 2025)

‘5.36 Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the site’

Could an ecologist take more than one day, to possibly find out whether they do exist? Perhaps, relay a more accurate, scientific analysis of the habitats, wildlife in surrounding areas? We believe so. These unique habitats do in fact exist, despite resting on the tipping point of climate change, pollution and human impact.

This is not a judgement or reflection of negligence on the ecologist's part, moreover a call to accountability in giving an accurate description of how remarkable and rare the biodiversity within Killough and the surrounding areas is.

'Interpretation of maps and aerial photography has been carried out using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use outside the field study'

An abundance of information is available. National Parks and Wildlife Service clearly states three Special Areas of Conservation.

- Lower River Suir SAC, 3.3 km northwest of proposed site
- River Barrow and river Nore SAC, 19.5 km East of the proposed site
- Aughnaglanny Valley 12.4 km West of the proposed site

'The area of woodland surrounding the existing quarry was largely inaccessible'

By the very fact this statement exists in an environmental impact assessment, it invalidates the integrity of the assessment. The study is inadequate and unrepresentative of a large section in question, namely the area of biodiversity closely affected by the development. Killough Hill woodlands is a pNHA, which under the Wildlife Amendment Act (2000), means it is legally protected from damage from the date they are formally proposed for designation.

This anaerobic digester poses a threat to several species in the area which are designated highly protected species. Should the water table be affected by the slightest pollution, eg. from digestate spread on land, it would lead to eutrophication of lakes and rivers, fish kills and the decimation of already endangered wildlife. Namely the Eurasian Otter, Freshwater Pearl Mussel and Peregrine Falcon population in Killough Woods.

I'd like the Council to be aware of a report conducted by the oldest and longest established environmental impact assessors in Ireland titled 'A Preliminary Report on Areas of Scientific Interest in Co. Tipperary S.R.' written by Edward Fahy and Roger Goodwillie, commissioned by The National Institute for Physical Planning and Construction Research (NPWS.ie).

**In Section B, Vulnerability of Various Habitats**, the report states the following:

'Quarrying is a threat whose effects are generally only seen in area of Geological importance and South Tipperary is probably unique in Ireland. In having a woodland which is at risk by the removal of the limestone hill. In which it is growing. Killough hill woodland has already been largely Removed and will disappear completely if efforts are not made to ameliorate, The effects of quarrying there.'

### **Section C**

'Woodlands on these lowland mineral soils are represented by ash and hazel and some good examples remain. One which has developed from open grassland in recent historic time is Killough Hill. Here there are few rarities but the limestone at the top of the hill is unusual, being in the form of a limestone pavement. The site has a selection of native invertebrates on the trees and the interstices of the rock. Killough is significant as one of the four exposures of limestone pavement in the country, isolated from the main region, the Burren in Cos.

Clare/Galway. It is the most Southern occurrence of this kind of habitat and as such deserves intensive study.'

### **Evaluation**

'The woodland on Killough Hill is of relatively recent origin but is developing well with a very good ground flora. It also houses a large bird population and varied mammals. The open areas of pavement and limestone grassland are perhaps more important since they are a rare feature in the country. To date only four exposures of pavement are known outside the western Clare-Galway area (see map). These have the same interest which oceanic islands have, being isolated from each other. A comparison of the invertebrate fauna with an area of the Burren (Richards, Proc.R.I.A.62,1) brings out some similarities especially the prevalence of scavengers, but the presence of a spider family (Dysderidae) suggests a different food chain at Killough. The site has good educational potential as well as its considerable scientific interest.'

To clarify the evaluation of this report. It compares Killough Hill to a UNESCO GLOBAL GEOPARK and applies the same ecological theory as was used for determining evolution on the Galapagos Islands – Island Biogeography Theory. This area is understudied and quite possibly contains species of wildlife never identified before, which would qualify it as an area of higher priority than a pNHA or SAC. Any industrial interference or influence on the watertable or even close to this area would be catastrophic to the habitat. The woods also serve as a wildlife corridor for the red squirrel and otter populations in the Special Areas of Conservation. Breeding territory for otter populations is 50 square kilometres. The company proposing this anaerobic digester have provided no evidence of accommodating these animals with under road bridges or fencing. The increased traffic on the road to the quarry would only serve to increase the mortality of a species already highly endangered. Ireland is a stronghold for these animals, any further threats to their existence is unthinkable.

I refer you to the Threat Response Plan -Otter *Lutra lutra* 2009 – 2011 (NPWS.ie)

A number of significant steps have been taken in recent years to secure the long future of the otter in Ireland:

- 44 SACs have been designated for the otter. Most of these are large sites incorporating extensive river/lake or coastal systems.
- A comprehensive programme of otter surveys, at both the national and catchment level, has been instigated.
- Extensive monitoring of water quality and fish biomass is underway.
- The National Roads Authority have prepared strict guidance for the protection of otters during the planning and construction of national roads.
- Environmental schemes in both forestry and agriculture are providing incentives to landowners to manage land to the benefit of riparian species such as the otter.

Nonetheless, the otter continues to face significant threats. In particular habitat destruction, water pollution, accidental death and persecution have been implicated in otter declines across Europe and these threats are discussed in detail in this plan. While

measures are already in place to address some aspects of these threats, further action is required in certain areas.’

The otter has been protected in Ireland under national legislation since 1976 (Wildlife Act 1976).

The otter is listed on Annex II and Annex IV of the EU Habitats Directive (92/43/EEC). The Annex II listing requires Member States to designate Special Areas of Conservation (SACs) for the protection of the species. 44 such SACs have been designated in Ireland. Two of which surround the quarry and Killough Hill woodlands.

### **6.1 Regulation 23 - Strict protection**

Annex IV listing requires Member States to implement a system of strict protection for the species. Should the permission for the digester go ahead, this would be a violation of the legislation protecting these species by proxy, leading to Tipperary County Council being answerable for their actions.

This also applies to the Red Squirrel, Freshwater Pearl Mussel and Peregrine Falcon, among many other species of animal and plant in the area.

We refer you to: E. A. Moorkens (2000) Conservation Management of the Freshwater Pearl Mussel - *Margaritifera margaritifera*. Part 2: Water Quality Requirements. Irish Wildlife Manuals, No. 9

‘The conservation of the freshwater pearl mussel *Margaritifera margaritifera* (L.) requires action to improve and maintain river quality conditions for this species. This includes controlling the physical effects that contribute to riverbed deterioration, and the water quality parameters in which the mussels must live. For effective conservation, both aspects of river quality must be addressed.’

‘*Margaritifera margaritifera* is classed as vulnerable on the IUCN red data list (Wells et al., 1983). It is listed under Annex II and IV of the EU Habitats Directive and Appendix II of the Bern Convention and is protected under Statutory Instrument SI 112 of 1990 in Ireland (Wildlife Act, 1976).’

We can’t stress the importance of conservation and protection here enough, of the Fresh Pearl Mussel, unique to this SAC, just 3.5 km’s from the proposed development. Any change in ammonia or phosphate levels from land, into the water would be devastating. It would change the oxygen levels, pH and water quality. Drastically affecting the survival rate of this species. They are exceptional bioindicators of water quality. They form part of the diet for the otters also. Bioaccumulation of toxins in the lower food chain, leads to biomagnification of toxins in higher predatory species such as the otters. A chain reaction from waste fed into the rivers and lakes.

By the very fact this statement exists in an environmental impact assessment, it invalidates the integrity of the assessment. The study is inadequate and unrepresentative of a large section in question, namely the area of biodiversity closely affected by the development. Killough Hill woodlands is a pNHA, which under the Wildlife Amendment Act (2000) , means it is legally protected from damage from the date they are formally proposed for designation.

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We would like the Council to be aware of a report conducted by the oldest and longest established environmental impact assessors in Ireland titled 'A Preliminary Report on Areas of Scientific Interest in Co. Tipperary S.R.' written by Edward Fahy and Roger Goodwillie, commissioned by The National Institute for Physical Planning and Construction Research (NPWS.ie).

### **Air Pollution, Odour, and Impacts on Flora and Fauna**

The EIAR Air Quality Assessment (Chapter 8) warns of emissions of ammonia, methane, and other pollutants from the anaerobic digester<sup>30</sup>. EIAR Chapter 8 - Airborne Ammonia and Acid Deposition: Studies show that ammonia emissions can acidify soil and water, negatively impacting plant communities and insect populations <sup>30</sup>. EIAR Chapter 8 –

Odour and Insect Displacement: The spread of odorous compounds can cause population declines in pollinators such as bees and butterflies, which rely on chemical signals for foraging County Tipperary Biodiversity Plan (2025-2030)

Bats and Artificial Lighting: The Mammal Atlas (2010-2015) confirms that bats are present in the area, and the proposed industrial-scale lighting will disrupt their feeding and roosting patterns Mammal\_Atlas\_web. Any investigation into these mammals should take place outside hibernation periods.

The Tipperary Biodiversity Action Plan (2025-2030) stresses the importance of maintaining intact ecosystems for pollinators and strictly limiting ammonia and methane emissions, which this development fails to address County Tipperary Biodiversity Plan (2025-2030) and its coming to fruition would adversely effect all of Tipperary.

#### **Conflicts with County and EU Biodiversity Strategies**

The proposed development contradicts the following key biodiversity policies:

Tipperary County Development Plan (2022-2028): Mandates no developments should endanger groundwater, biodiversity, or protected habitats.

EU Habitats Directive (92/43/EEC): Requires strict protection of SACs, water bodies, and threatened species, which the proposed activities of the anaerobic digester threatens. Ireland's National Biodiversity Action Plan (2023-2030): Prioritises restoring degraded ecosystems rather than approving projects that threaten biodiversity.

The County Tipperary Biodiversity Action Plan (2025-2030) confirms that biodiversity loss is already a crisis, and this project will further contribute to species declines and ecosystem degradation County Tipperary Biodiversity Plan (2025-2030)

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## Failure to Comply with Air Quality Standards

The air quality EIAR seems to only consider the traffic from the Biogas operations. From the traffic survey data, it looks as if there are approximately 82 HGV movements (2 way) and 31 LGV and 115 car movements. It does not appear that cumulative impacts have been assessed. The current quarry operations are very busy and visitor logs should be checked over a 30 day period (with times) to attain an accurate appraisal of movements.

The proposed facility will emit hazardous airborne pollutants, including methane, volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), and odorous compounds from anaerobic digestion. The EIAR does not provide a sufficient assessment of these risks, failing to meet the requirements of the EU Ambient Air Quality Directive (2008/50/EC), which mandates strict air quality limits to protect human health and biodiversity (European Parliament, 2008, p. 14).

The Environmental Protection Agency (EPA) Air Quality Guidelines (AG4, AG5) require comprehensive air dispersion modelling and odour mitigation strategies. However, the EIAR lacks:

Baseline nitrogen dioxide (NO<sub>2</sub>) levels to establish compliance with air quality standards.

A detailed air dispersion model to assess pollutant spread and impact.

Odour impact assessment and mitigation measures, as required under EPA AG5 (EPA, 2019, p. 27).

The air-quality seems to only consider the traffic from the Biogas operations. From the traffic survey data - it looks as if there are approx 82 HGV movements (2-way) and 31 LGV and 115 Car movements. It is unclear if the cumulative impacts have been assessed.

The impact of the tar/asphalt plant is not included in the EIAR nor its proximity to the proposed facility.

The use of vents in the storage facilities contravenes planning and air quality guidelines.

The Tipperary County Development Plan (2022-2028), Policy ENV7, states that developments must not degrade local air quality or harm biodiversity (Tipperary County Council, 2022, p. 132). The EIAR does not meet this requirement.

There are significant deficiencies in Chapter 8 – Air Quality of the EIAR, which fails to provide a sufficiently robust assessment of air quality impacts in accordance with:

Environmental Protection Agency (EPA) Air Dispersion Modelling Guidance Note (AG4, 2020)

Ambient Air Quality Standards Regulations 2022 (S.I. No. 739/2022)

Planning and Development Act 2000 (as amended)

Tipperary County Development Plan 2022-2028

Directive 2014/52/EU on Environmental Impact Assessments

The assessment fails to meet statutory requirements and underestimates potential air pollution impacts, particularly in relation to airborne emissions, odour, traffic-related pollutants, and cumulative impacts.

**Inadequate Baseline Air Quality Assessment.** The EIAR relies on regional air quality monitoring stations (Kilkenny, Portlaoise, and Tipperary Town), all of which are located over 30 km from the site. No on-site monitoring has been conducted to establish an accurate baseline air quality level for the development area.

This approach contravenes EPA guidelines, which state that air quality assessments must be site-specific and consider localised conditions (EPA AG4, 2020). The Planning and Development Regulations 2001 (S.I. No. 600/2001) require an EIA to properly assess environmental impacts, which cannot be done in the absence of site-specific data. Under Article 3 of EU Directive 2014/52/EU, an EIAR must provide a reliable baseline to measure significant effects. The use of distant air monitoring data creates an inaccurate foundation for the impact assessment and fails to meet the legal requirement for a comprehensive EIAR.

### **Failure to Properly Assess Dispersion of Air Pollutants**

The EIAR references the EPA Air Dispersion Modelling Guidance Note (AG4, 2020) but does not provide:

A clear description of the modelling software used.

Validation of model assumptions against local meteorological conditions.

A sensitivity analysis to test worst-case emissions.

Dispersion models are required under the Ambient Air Quality Standards Regulations 2022 (S.I. No. 739/2022) to assess pollutants such as nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The lack of site-specific modelling means the assessment fails to meet statutory requirements and may underestimate pollutant dispersion in local conditions. Furthermore, under Schedule 5 of the Planning and Development Regulations 2001, projects involving industrial emissions must assess potential human health impacts, which has not been adequately demonstrated.

### **Underestimation of Traffic-Related Emissions**

The EIAR acknowledges that additional HGV traffic will result from the facility's operations but fails to properly quantify:

The increase in nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>/PM<sub>2.5</sub>) emissions from diesel vehicles.

The impacts of peak-hour traffic emissions on sensitive receptors.

The cumulative effects of additional traffic from related developments.

The net increase in carbon from additional movements for inputs and outputs of the proposed facility, in violation of the Paris Accord.

Directive 2008/50/EC on Ambient Air Quality sets strict limits for NO<sub>2</sub> and PM emissions, particularly in rural areas. The failure to model these emissions in detail renders the EIAR incomplete and in non-compliance with air quality legal standards.

Under the Tipperary County Development Plan 2022-2028, the Council is required to assess the impact of increased traffic emissions on local communities. The EIAR provides no evidence that projected emissions have been assessed against legal air quality limits, breaching this policy requirement.

### **Inadequate Odour Impact Assessment**

The EIAR states that odour control measures will be implemented but fails to quantify odour emissions under worst-case conditions. No odour dispersion modelling has been presented, despite:

The EPA Odour Emissions Guidance Note (AG9, 2017) requiring odour modelling for industrial sites.

The need to assess compliance with the Air Pollution Act 1987, which prohibits emissions that cause a nuisance to the public.

The Planning and Development Act 2000 (as amended) requires that planning decisions must prevent environmental nuisances, which includes odour. The failure to assess odour dispersion from the facility means the application lacks legally required evidence on potential nuisance levels.

Furthermore, there is no clear commitment to continuous odour monitoring post-construction, contrary to best practice guidance under the Environmental Protection Agency's licensing regime.

The worrying inclusion of vents in the plans which illustrate that the proposed facility intends to release toxic gases into the local atmosphere.

#### **Absence of Ammonia (NH<sub>3</sub>) Deposition Assessment on Sensitive Ecosystems**

The facility will generate ammonia (NH<sub>3</sub>) emissions, yet the EIAR:

Fails to model ammonia dispersion and its impact on local biodiversity.

Omits any reference to ammonia deposition limits, despite protection measures under the EU Habitats Directive (92/43/EEC).

Under Article 6(3) of the Habitats Directive, an EIAR must assess potential air pollution impacts on designated ecological sites. The omission of an ammonia deposition assessment violates this requirement and makes the application legally deficient.

#### **No Comprehensive Cumulative Impact Assessment**

The Planning and Development Act 2000 requires an EIAR to assess cumulative impacts in combination with other existing or proposed developments. However, this EIAR fails to consider the combined air pollution effects of:

- The existing quarry operations at Killough.
- Other industrial activity in the surrounding area.

- Additional traffic emissions from HGVs servicing the site.

Under EPA Guidance on Environmental Impact Assessment (2017), cumulative impact assessment is a mandatory component of any EIAR. The omission of this assessment violates national and EU planning requirements.

Based on the above deficiencies, the Air Quality Chapter of the EIAR fails to comply with Irish and EU planning laws. In particular, it does not meet the requirements of:

The Planning and Development Act 2000 (as amended)

Directive 2014/52/EU on Environmental Impact Assessments

EPA Air Dispersion Modelling Guidance Note (AG4, 2020)

The Air Pollution Act 1987

The Tipperary County Development Plan 2022-2028

Given these fundamental flaws, the EIAR does not provide a legally compliant air quality assessment, and the application should be refused on the grounds of:

Failure to provide a site-specific baseline air quality assessment.

Omission of robust air dispersion modelling for pollutants and odours.

Failure to assess ammonia emissions' impact on sensitive ecological sites.

Lack of a comprehensive cumulative impact assessment.

### **Hazardous Material Releases and Public Health Risks**

Air quality and explosive risks (**see attached appendix 1**) will impact residents living within this community. A lightning conductor should be included in these plans. A brownfield site should be used for this proposed application.

The facility will store over 14,702 kg of methane under high pressure (EIAR, p. 9-0). The EIAR does not assess the risk of methane leaks or secondary pollutants such as carbon monoxide and formaldehyde from combustion. These omissions violate Annex IV of the EIA Directive (2014/52/EU), which mandates full environmental risk assessments for industrial emissions (European Parliament, 2014, p. 22).

The EIAR fails to demonstrate compliance with air quality regulations and does not adequately assess the serious environmental risks posed by hazardous emissions. Key reasons for refusal include:

Violation of EU Air Quality Directive (2008/50/EC) – No baseline air quality data or dispersion modeling.

Failure to comply with EPA Guidelines (AG4, AG5) – No odour impact assessment or mitigation measures.

Risk to protected species under EU Biodiversity Laws – No assessment of air pollution effects on kestrel, badger, and pine marten.

Breach of Tipperary County Development Plan (Policy ENV7) – No measures to prevent air quality degradation.

### **Failure to Adequately Address Karst Features and Groundwater Vulnerability**

The site is located within a karst landscape underlain by a regionally important aquifer (Rkd), classified as having extreme groundwater vulnerability (EIAR, p. 6-18). This designation means contaminants could rapidly migrate through enlarged fractures and epikarst features into the drinking water supply. The EIAR acknowledges that "the karst nature of the bedrock introduces rapid transport pathways for contaminants, increasing the risk of groundwater pollution" (EIAR, p. 6-4), yet it does not provide sufficient mitigation measures.

The EU Water Framework Directive (2000/60/EC) mandates that high-risk developments must prevent deterioration of water quality. Given the "direct connection between the quarry floor and the underlying aquifer" (EIAR, p. 6-22), any leakage from digestate tanks, accidental spills, or structural failure could cause irreversible contamination.

Furthermore, Figure 6-3 of the EIAR illustrates the extent of groundwater vulnerability, showing that the entire quarry site is classified as 'Extreme Risk', reinforcing that any pollution event would have severe environmental consequences.

The quantity of water used in the process and subsequently as an output illustrates the extra liability of maintaining water standards that this operation possesses.

### **Structural Risks Due to Faults and Discontinuities**

The EIAR acknowledges the presence of a major fault running through the quarry and jointing discontinuities that dip out of the quarry face (EIAR, p. 6-11). These geological conditions increase the risk of subsidence and structural instability. The 2016 Geotechnical Assessment, referenced in the EIAR, describes "closely spaced fractures" that could lead to "sinkhole formation under certain hydrological conditions" (EIAR, p. 6-8). However, no further structural stability testing was conducted to assess these risks in relation to the proposed development. No testing of concrete and other materials due to seismic activity (blasting) was evident either, nor was there a 5km exclusion zone from blasting presented either, due to the known risks of flyrock and the instability of methane and its likelihood to ignite.

Given that the quarry walls were "observed to be dry" in 2016 (EIAR, p. 6-8), there is a failure to account for seasonal variations or extreme weather events that could trigger groundwater movement and instability. Figure 6-7 further details mapped subsidence features but fails to consider their potential impact on the proposed facility.

### **Insufficient Assessment of Potential Contaminant Migration**

The EIAR does not include a detailed contaminant transport model, despite acknowledging that the "site's hydrogeological setting presents a potential risk of rapid contaminant migration to the regional aquifer" (EIAR, p. 6-20). Given that karst aquifers are characterized by fast and unpredictable flow rates, the absence of such an assessment represents a critical deficiency.

The Precautionary Principle, enshrined in Article 191 of the Treaty on the Functioning of the European Union, mandates that projects with uncertain environmental risks should not

proceed. In this case, the EIAR fails to demonstrate that contaminant pathways will be effectively controlled, thereby violating this principle.

#### Non-Compliance with National and EU Planning Policies

##### (a) Tipperary County Development Plan (2022-2028)

Policy WS3 states that developments in areas of extreme groundwater vulnerability must conduct robust site-specific hydrogeological investigations. The EIAR fails to meet this standard due to the lack of a contaminant risk assessment.

Section 8.5 prioritises the protection of groundwater resources, emphasising that "developments must not pose a risk to regionally important aquifers." The proposed site directly contradicts this requirement.

Figure 8.4 of the County Development Plan clearly designates the area as part of a Groundwater Protection Zone, reinforcing the need for stringent assessment.

##### (b) EU Water Framework Directive (2000/60/EC)

The Directive requires that all developments "ensure the protection of groundwater from hazardous substances and prevent any significant deterioration in water quality" (WFD, Article 4). The lack of a detailed hydrogeological risk assessment fails to satisfy this obligation.

##### (c) Environmental Impact Assessment Directive (2011/92/EU, amended by 2014/52/EU)

The EIAR does not meet the requirements of Annex IV, which mandates a "comprehensive assessment of project risks, including cumulative and long-term effects" (EIA Directive, Annex IV, Section 5).

The lack of alternative site analysis also contravenes the Directive's requirement that developers "demonstrate that all reasonable alternatives have been considered."

#### Risks of Hazardous Materials and Planning Violations: Extreme Groundwater Vulnerability and Contamination Risks

The site is classified as an extreme groundwater vulnerability zone, making it highly susceptible to contamination (Roadstone Ltd., 2024, p. 6-18). Despite this, the EIAR fails to outline adequate containment measures to prevent hazardous material leakage into groundwater, violating the EU Water Framework Directive (2000/60/EC) (European Parliament, 2000, p. 8).

The Environmental Protection Agency (EPA) Guidelines (2004) state that facilities handling hazardous waste in high-risk areas require detailed hydrogeological risk assessments and spill prevention strategies (EPA, 2004, p. 31). The EIAR lacks a contaminant transport model, a mandatory requirement under Annex IV of the EIA Directive (2014/52/EU) (European Parliament, 2014, p. 22).

#### **Airborne Emissions and Non-Compliance with Air Quality Laws**

The EIAR does not sufficiently assess the impact of volatile organic compounds (VOCs) from biological waste storage and processing, contradicting EU Air Quality Directives

(2008/50/EC), which require strict monitoring of emissions near sensitive habitats (European Parliament, 2008, p. 14) (Roadstone Ltd., 2024, p. 16-24). Nor does it jointly assess quarry activities already existing onsite in its EIAR.

### **Conflicts with Tipperary County Development Plan**

Policy NH5: Requires “ecological corridors to be maintained and enhanced.” The facility’s construction will fragment existing woodlands, violating this policy (Tipperary County Council, 2022, p. 98).

Policy WS3: Mandates “detailed hydrogeological assessments for developments in extreme groundwater vulnerability areas.” The EIAR lacks a sufficient contaminant migration analysis (Tipperary County Council, 2022, p. 112).

The Tipperary County Development Plan outlines a vision for balanced and sustainable development in the region, emphasising the need to integrate economic, environmental, and social considerations. The proposed anaerobic digester is situated within a location that, according to the Development Plan, is subject to specific land-use provisions that prioritise agricultural activity, residential protection, and environmental sustainability.

The EIAR fails to sufficiently justify the compatibility of the proposed development with the surrounding land-use zoning. In particular:

**Proximity to Residential Areas:** The proposed site lies near residential communities, and the Development Plan explicitly requires that waste management and energy generation projects, such as anaerobic digesters, be located at a safe distance from such areas. The potential for noise, air pollution, and risk of accidents creates a conflict with the residential land-use zoning that prioritizes the protection of community health and well-being.

**Environmental Sustainability and Landscape Considerations:** The County Development Plan stresses the importance of maintaining environmental integrity, particularly with respect to natural landscapes and ecosystems. However, the EIAR underestimates the visual impact of the digester on the surrounding area and does not sufficiently explore how the development would alter the local landscape. The Plan encourages the integration of development into the natural environment with minimal disturbance, yet the report fails to provide detailed mitigation strategies to protect the aesthetics and natural features of the area.

### **Non-Compliance with COMAH Lower-Tier Classification**

The proposed facility will store and process hazardous substances, including methane and biomethane, in quantities exceeding the Lower-Tier COMAH threshold of 10 tonnes (European Parliament, 2012, Annex I, Part 1). The EIAR acknowledges a biogas storage volume of 11,000 m<sup>3</sup> (EIAR, p. 2-22), which alone surpasses this threshold. However, it fails to account for methane off-gassing from digestate storage tanks, which could add a further 96.6 m<sup>3</sup> of methane (EIAR, p. 2-23), bringing total methane storage above 11,096 m<sup>3</sup>.

According to the European Commission (2017, p. 42), "facilities storing hazardous substances above Seveso III thresholds must implement rigorous safety protocols and risk assessment measures." The COMAH Regulations (S.I. No. 209 of 2015, Regulation 8) mandate that any facility exceeding the threshold must comply with specific safety and emergency planning requirements.

Absence of a Major Accident Prevention Policy (MAPP)

Article 7 of the Seveso III Directive (European Parliament, 2012) and Regulation 9 of the COMAH Regulations require the submission of a Major Accident Prevention Policy (MAPP), detailing the operator's strategy for preventing hazardous incidents. The EIAR lacks such a policy (EIAR, p. 15-17) and provides no evidence of a structured Safety Management System (SMS) as required by law (EIAR, p. 15-22).

The Health and Safety Executive (HSE, 2020, p. 15) states that "a well-structured MAPP is crucial in mitigating high-risk accidents in industrial settings." The absence of a MAPP constitutes a serious failure in regulatory compliance.

### **Deficiencies in Emergency Response Planning**

The Seveso III Directive (European Parliament, 2012, Article 12) and COMAH Regulations (S.I. No. 209 of 2015, Regulation 15) require Lower-Tier sites to coordinate emergency planning with fire services, HSE, and An Garda Síochána. The EIAR, however, fails to outline a site-specific emergency response plan (EIAR, p. 15-19), instead relying on the Tipperary County Council Major Emergency Plan (2014), which does not address biogas-related hazards (EIAR, p. 15-20).

As noted by the European Commission (2017, p. 56), "effective emergency planning must include site-specific risk identification, response coordination, and simulation-based preparedness." The EIAR lacks these critical components.

### **Quarry-Specific Risks & Gas Migration Hazards Ignored**

The proposed facility is situated within an active limestone quarry, presenting additional hazards including gas migration through fractured rock formations (Waltham, 2009). The EIAR fails to provide a geological stability study (EIAR, p. 2-28) or an assessment of underground methane accumulation risks (EIAR, p. 15-11), both of which are crucial under COMAH Regulations (Regulation 17).

As highlighted by Waltham (2009, p. 85), "gas migration in fractured limestone formations poses a significant risk of undetected accumulation, leading to potential explosion hazards." The omission of such an analysis in the EIAR represents a fundamental oversight.

### **Flyrock Risk from Quarry Blasting**

The EIAR does not include a comprehensive flyrock risk assessment, despite the fact that the biogas facility will be located within an active quarry. Flyrock from blasting operations can travel up to 500m (European Federation of Explosives Engineers, 2015), posing a direct threat to gas storage tanks, digestate tanks, and chemical storage units, (**see attached appendix 1**)

Persson et al. (2009, p. 172) state that "flyrock impact on pressurised gas storage can cause catastrophic failures, leading to large-scale fire and explosion risks." The omission of a dedicated flyrock impact assessment is a serious flaw in the EIAR risk evaluation process (EIAR, p. 15-28).

The Health and Safety Authority (HSA, 2010) requires COMAH sites to evaluate risks from quarry blasting as part of land-use safety planning. The EIAR does not comply with this requirement. Hydrogen sulphide can not be vented into the air with residents closeby. This is part of the proposed plans submitted.

### **Lack of External Risk Assessments**

The Seveso III Directive (European Parliament, 2012, Article 10) mandates that external risk factors such as flooding, severe weather, and security threats be assessed. However, the EIAR dismisses flood risk (EIAR, p. 15-12), omits wind dispersion modelling for gas leaks (EIAR, p. 15-14), and lacks any assessment of potential sabotage risks (EIAR, p. 15-16).

According to the European Environmental Agency (EEA, 2018, p. 29), "flooding and extreme weather events significantly increase the likelihood of industrial accident scenarios, particularly where hazardous materials are stored in open or structurally vulnerable sites."

### **Conclusion & Requested Actions**

The EIAR for the Killough Quarry Biogas Facility fails to meet its statutory obligations under the Seveso III Directive and COMAH Regulations. It needs to review COMAH classification, lacks a Major Accident Prevention Policy, and omits critical safety and emergency planning measures. Until these deficiencies are rectified, the proposed development presents an unacceptable risk to public safety and environmental protection.

We request that Tipperary County Council review the following:

- Full recognition of the facility as a COMAH Lower-Tier site.
- Submission of a compliant Major Accident Prevention Policy (MAPP).
- Development of a detailed, site-specific Emergency Response Plan.
- Completion of a Quantitative Risk Assessment (QRA) for explosion and fire hazards.
- Comprehensive geological and gas migration studies.
- Inclusion of flyrock impact analysis and external risk factors such as flooding, wind dispersion, and sabotage threats.
- EIAR does not provide a legally compliant air quality assessment, and the application should be refused on the grounds of:
  - Failure to provide a site-specific baseline air quality assessment.
  - Omission of robust air dispersion modelling for pollutants and odours.
  - Failure to assess ammonia emissions' impact on sensitive ecological sites.
  - Lack of a comprehensive cumulative impact assessment.
- The Natura Impact Statement states at 4.2 Environmental Management System In addition, an Environmental Management System ( which will include, but not be limited to the following: · Measures to comply with the Industrial Emissions licence and other relevant environmental legislation. · Waste Acceptance Procedures. · Standard Operating Procedures · Measures to comply with the corporate sustainability goals (e.g., reducing water and energy consumption); and · Accident prevention and emergency response procedures. The above clearly shows that Tipperary County Council cannot make a decision to grant permission based on the information provided.

As a community group, we are aware that there are interest groups that would benefit from a project like this. We appreciate dialogue and have had meetings where everyone is invited, and we have been open, transparent and forthcoming to everyone with all of our research and conclusions. We acknowledge there is economic benefit for some to provide some of the inputs to the biomethane process, and the opportunity for decreasing nitrates. However, the hazards associated with the proposed facility, its location on an elevated site co-located with an active quarry, its threat to water quality, biodiversity, protected species, and air and noise associated with its activities mean that it is totally wrong for this location. Please consider the National Bioeconomy campus as an alternative. As a local community group, with no vested interest other than how to preserve the environment in our community, we implore you to look at this proposed application and how it will impact a whole community, comprising of rural residents who have nothing to gain and everything to lose- their health - from proximity to this proposed application whose alleged carbon benefits are questionable.

Yours faithfully,



Alice Coman B.A., M. Ed, HDE.

Chairperson

**Killough Community Group TPPN-01760**



View of the site of the proposed AD development from home E41R2F5.

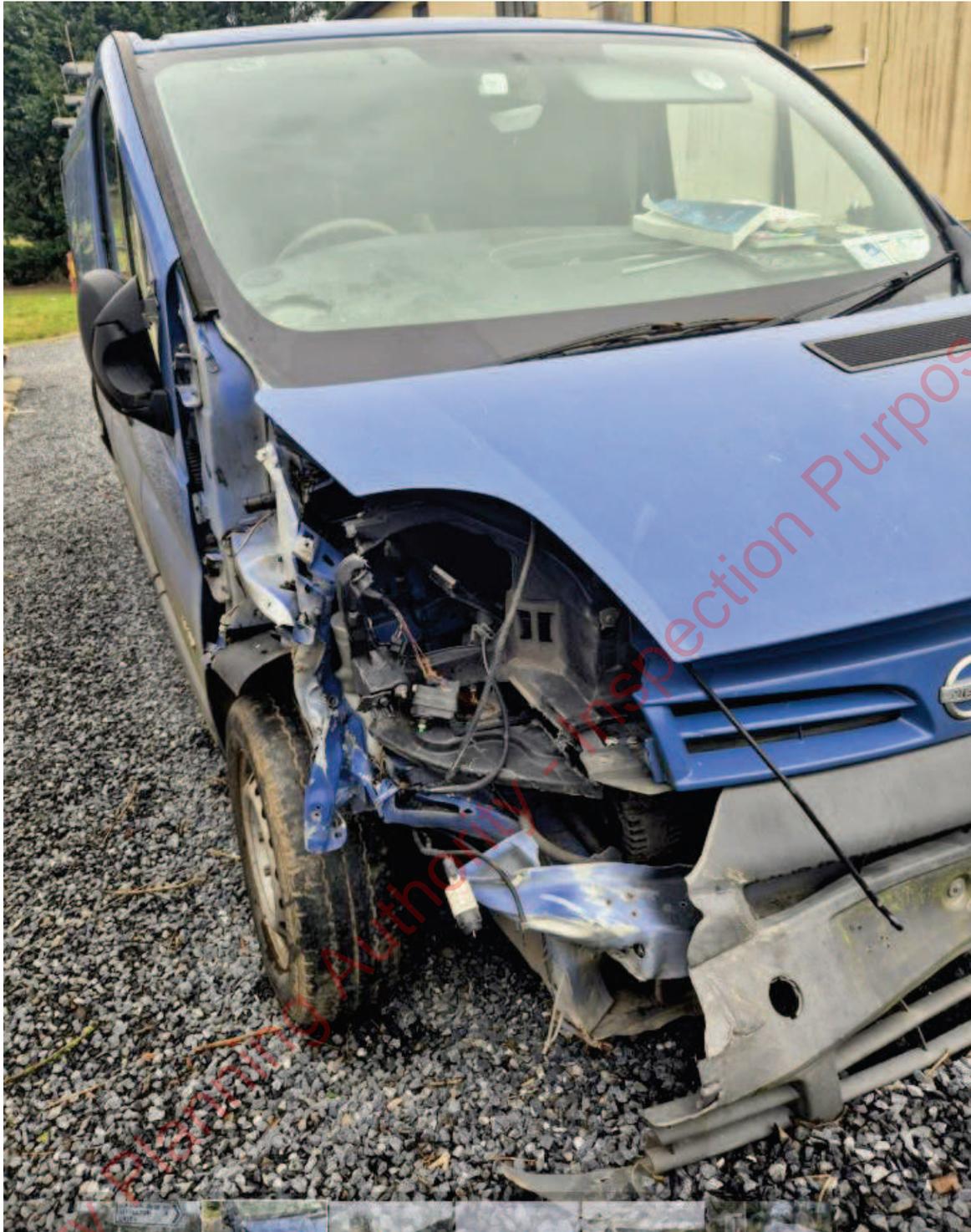
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Photos of traffic on main road artery L1309 to Killough Quarry and proposed site location.



Picture of a local house with cracks within 230 metres of the proposed development currently affected by the continual and ongoing blasting of the quarry.



Picture of a local vehicle which was involved in a road traffic accident on Killough quarry local road, which the root cause of the accident was due to the narrow width of the road.

## Appendix 1 Explosive Material – AIE Request

---

**From:** FOI <FOI@garda.ie>  
**Sent:** Thursday 21 November 2024 3:52 pm  
**To:** Pat Shanahan <Pat.Shanahan@nuahealthcare.ie>  
**Cc:** killoughbiogasconcerncommittee@gmail.com <killoughbiogasconcerncommittee@gmail.com>; FOI <FOI@garda.ie>  
**Subject:** RE: (External)Access to Information on the Environment "AIE" Request

Dear Mr. Shanahan

I refer to your e-mail below. Having examined the available records I can advise that the accumulated total of explosives transferred to Killough Quarry in the period stands at 389,500 kg

Kind Regards  
Paul

**Paul Bassett | Assistant Principal Officer | Freedom Of Information Office, An Garda Síochána, Athlumney House, IDA Business Park, Johstown, Navan, Co Meath | Tel: 046 9036373; Mob: 085-8061865 | foi@garda.ie**

**From:** Pat Shanahan <Pat.Shanahan@nuahealthcare.ie>  
**Sent:** Wednesday 13 November 2024 13:13  
**To:** FOI <FOI@garda.ie>  
**Cc:** killoughbiogasconcerncommittee@gmail.com; info@ocei.ie  
**Subject:** Re: (External)Access to Information on the Environment "AIE" Request  
**Importance:** High

Dear Mr Basset,

The AIE request submitted on behalf of the Killough Biogas Concern register community group is clearly not the same request as you have referenced in a recent OCEI Decision. As previously stated, we would respectfully ask that you reconsider our request on behalf of the Killough Community Group, as we do not believe you have considered the material facts pertinent to this specific AIE request. Consequently we wish to appeal your decision, in that regard please confirm your refusal. The failure to provide this information undermines the entire statutory planning process and poses a serious risk to safety and life in our local community. The community simply requires the accumulated volume of explosive material and explosive power of the material used in the quarry for a prolonged period of time so that it can be considered by the planners, how it would impact the proposed Biogas facility and high pressure gas refinery and storage, the community do not require personal data or particular dates and times as you have referenced in your responses to date.

Under Article 11 of the AIE Regulations I again wish to request the right to an internal review of this decision. I note an internal review involves a complete reconsideration of the matter by a member of the staff of the Department, unconnected with the original decision,

of the same or higher rank than the original decision-maker, who may affirm, vary or annul the original decision.

"However having considered the factors both in favour and against release, I am satisfied that the public interest served by the release of the records sought does not outweigh the substantial public interest served by the ability of An Garda Síochána to carry out its law enforcement and public safety functions effectively. As such I am applying the provisions of Article 9(1)(a) to your request."

The location of such a **large and volatile and explosive Biogas facility and high pressure refinery** is of the upmost public interest and the safety and well-being of local residents and wider community. A refusal and failure of providing the requested environmental information undermines the public interest, and the planning and the statutory planning process. Please outline on an evidence basis the rationale of your decision to refuse the request to support the statutory planning process and all relevant state agencies: not limited to the HSE, EPA, NPWS, UISCE Éireann, An Taisce, the legal rights of the local community who are most concerned about our safety. An explosion of any kind would be environmentally catastrophic to local SAC, the wider community and the river Suir basin and also a huge risk to life, please consider same in our considerations and AIE decision process. Thank you for your attention to this matter. I look forward to your prompt written response.

Kind Regards,

Pat Shanahan

Email: [killoughbiogasconcerncommittee@gmail.com](mailto:killoughbiogasconcerncommittee@gmail.com)

Email: [patmshanahan@gmail.com](mailto:patmshanahan@gmail.com)

Mobile: 0867722254

For and on behalf of **Killough Community Group**.

---

**From:** FOI <[FOI@garda.ie](mailto:FOI@garda.ie)>

**Sent:** Tuesday 12 November 2024 2:37 pm

**To:** Pat Shanahan <[Pat.Shanahan@nuahealthcare.ie](mailto:Pat.Shanahan@nuahealthcare.ie)>

**Cc:** Pat Shanahan <[patmshanahan@gmail.com](mailto:patmshanahan@gmail.com)>; FOI <[FOI@garda.ie](mailto:FOI@garda.ie)>

**Subject:** RE: (External)Access to Information on the Environment "AIE" Request

Dear Mr. Shanahan,

I refer to your correspondence below in which you have sought a review of my decision in respect of your recent request. In respect of the points raised below, I wish to clarify the matters addressed in my decision letter. The AIE Regulations provide for a right of access to environmental information held by public bodies, however they do not provide an unlimited right of access. The regulations provide certain circumstances in which information may be refused or partially released. While you may feel strongly that certain information should be released to you, I am obliged to act in accordance with the Regulations.

The records provided to you consist of all records held by An Garda Síochána in relation to your request. I have made redactions to these records in respect of two separate categories of information. Firstly, I have redacted the names of third party individuals. I am obliged by Article 8(a)(i) to make these redactions to such personal information.

The second category of redactions relates to the types and quantities of explosives and associated materials delivered to the quarry on particular dates. These redactions are made under Article 9(1)(a) on the grounds of public security. In making these particular redactions I am complying with a recent ruling of the Office of the Commissioner for Environmental Information (OCEI) in case OCE-139291-SOX9P9. That case involved a request for equivalent records in respect of another quarry. In case OCE-139291-SOX9P9, This Office had also redacted details of the types and quantities of explosives and associated materials delivered to the quarry in question. The requester appealed that decision to the OCEI. The OCEI carefully examined the records in that case (which are the equivalent of the records involved in this case) and considered the public interest factors both in favour and against release. Having done so the OCEI determined that while there is a requirement in the Regulations to interpret grounds for refusal restrictively, the public interest in protecting public security exceeded the public interest in the disclosure of the types and quantities of explosives and associated materials utilised.

I am enclosing a copy of the OCEI judgement in case OCE-139291-SOX9P9 for your information and I would ask you to consider its contents. You may still wish to pursue an Internal review and are of course free to do so. However I must advise that the records in question in your case are the exact equivalent of those considered by the OCEI. The OCEI was clear that the redactions made in case OCE-139291-SOX9P9, which have been mirrored in your case, were justified under the Regulations.

Should you wish to continue with your Internal Review, please let me know

Kind Regards  
Paul

**Paul Bassett | Assistant Principal Officer | Freedom Of Information Office, An Garda Síochána, Athlumney House, IDA Business Park, Johstown, Navan, Co Meath | Tel: 046 9036373; Mob: 085-8061865 | [foi@garda.ie](mailto:foi@garda.ie)**

**From:** Pat Shanahan <[Pat.Shanahan@nuahealthcare.ie](mailto:Pat.Shanahan@nuahealthcare.ie)>

**Sent:** Sunday 10 November 2024 14:07

**To:** FOI <[FOI@garda.ie](mailto:FOI@garda.ie)>

**Cc:** Pat Shanahan <[patmshanahan@gmail.com](mailto:patmshanahan@gmail.com)>; Pat Shanahan <[Pat.Shanahan@nuahealthcare.ie](mailto:Pat.Shanahan@nuahealthcare.ie)>

**Subject:** (External)Access to Information on the Environment "AIE" Request

**Importance:** High

**This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments.**

---

Dear AIE / FOI Officer,

Please note attached letter.

I would respectfully ask that you reconsider my request on behalf of the Killough Community as we do not believe you have considered the material facts pertinent to the AIE. Consequently we would like to appeal your decision. The failure to provide this information undermines the planning process and poses a serious risk to lives in our local community.

Under Article 11 of the AIE Regulations I wish to request the right to an internal review of this decision. I note an internal review involves a complete reconsideration of the matter by a member of the staff of the Department, unconnected with the original decision, of the same or higher rank than the original decision-maker, who may affirm, vary or annul the original decision.

"However having considered the factors both in favour and against release, I am satisfied that the public interest served by the release of the records sought does not outweigh the substantial public interest served by the ability of An Garda Síochána to carry out its law enforcement and public safety functions effectively. As such I am applying the provisions of Article 9(1)(a) to your request."

The location of such a large and volatile and explosive Biogas facility is of the most upmost public interest and the safety and well-being of local residents and wider community. Your refusal and the failure of providing the requested environmental information undermines the public interest, and the planning and the statutory planning process. Please outline on an evidence basis the rationale of your decision to refuse the request to support the statutory planning process and all relevant state agencies: not limited to the HSE, EPA, NPWS, UISCE Éireann, An Taisce, the legal rights of the local community who are most concerned about their safety.

As you are aware the access to information on the environment (AIE) regulations give citizens the right to access environmental information held by An Garda Síochána and other public authorities. A decision on your request must normally be made as soon as possible but at the latest one month from the date of receipt of the request.

I refer to the European Communities (Access to Information on the Environment) Regulations 2007 to 2011 (S.I. No. 133 of 2007 and S.I. No. 662 of 2011) (hereafter and attached referred to as the AIE Regulations), which give legal rights to public access, seeking to access information on the environment from public authorities.

I note under these regulations, information relating to the environment held by, or for, a public authority must be made available on request, subject to certain exceptions. The AIE Regulations provide a definition of environmental information; outlines the manner in which requests for information may be submitted to public authorities and the manner in which public authorities are required to deal with requests.

I also noted environmental information has a broad definition. It is recorded information, in any form, in any of the following areas: the state of elements of the environment and their

interaction (air, water, soil, land and landscape, natural sites, flora and fauna) discharges, emissions, noise, radiation, waste.

Thank you for your attention to this matter. I look forward to your acknowledgement and prompt written response.

Kind Regards,

Pat Shanahan

Email: [killoughbiogasconcerncommittee@gmail.com](mailto:killoughbiogasconcerncommittee@gmail.com)

Email: [patmshanahan@gmail.com](mailto:patmshanahan@gmail.com)

Mobile: 0867722254

For and on behalf of **Killough Community Group**.

Tipperary Planning Authority - Inspection Purposes Only!

## Appendix 2

### A/E Response

<b>Request:</b>	Certified Bord Bia Farm Members within 25km of E41R2F5		
<b>Requested By:</b>	Pat Shanahan on behalf of Killough community group	<b>Date:</b>	Report Generated 19/11/2024

This report outlines the number of Bord Bia-certified farm members located within a 25km radius of E41R2F5, categorised by scheme and certification type.

#### 1.1 Summary by Scheme

##### 1.1.1 Sustainable Beef and Lamb Assurance Scheme (SBLAS):

**Total Certified Members: 2,164**  
of which Certified for Beef: 2,149  
of which Certified for Lamb: 136

##### 1.1.2 Sustainable Dairy Assurance Scheme (SDAS):

**Total Certified Members: 508**

##### 1.1.3 Pigeat Quality Assurance Scheme (PQAS):

**Total Certified Members: 12**

##### 1.1.4 Sustainable Egg Assurance Scheme (SEAS):

**Total Certified Members: None**

##### 1.1.5 Sustainable Poultry Products Assurance Scheme (SPPAS):

**Total Certified Members: None**

##### 1.1.6 Sustainable Horticulture Assurance Scheme (SHAS):

**Total Certified Members: 6**

Tipperary Planning Authority - Inspection Purposes Only!

## Roadstone Killough

keep

Search for all messages with label keep

Remove label keep from this conversation



**McDonald, Jack** <jmcdonald@roadstone.ie>

22 Oct  
2024,  
17:05

to me

Hi Alice,

Thank you for your email to the info email address.

Apologies for replying late as I was caught up with meetings and travel.

Would you be able to give me a call when it suits to discuss your email?

Or we can organise a time for a call that would suit yourself.

My number is 087 161 8730. Thank you,

Kind Regards,

**Jack McDonald**

Location Manager

Roadstone Ltd. Killough, Thurles, Co. Tipperary, E41 T622

m: +353 87 161 8730

e: [jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie) w: [roadstone.ie](http://roadstone.ie)



alice coman <comanalice@gmail.com>

22 Oct  
2024,  
17:44

to Jack

Hi Jack-

Which email? I've sent more than one without any response.

Kind regards,

Alice.



alice coman <comanalice@gmail.com>

22 Oct  
2024,  
17:44

to Pat

---

----- Forwarded message -----

From: **McDonald, Jack** <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)>

Date: Tue 22 Oct 2024 at 17:05

Subject: Roadstone Killough

To: [comanalice@gmail.com](mailto:comanalice@gmail.com) <[comanalice@gmail.com](mailto:comanalice@gmail.com)>

Hi Alice,

Thank you for your email to the info email address.

Apologies for replying late as I was caught up with meetings and travel.

Would you be able to give me a call when it suits to discuss your email?

Or we can organise a time for a call that would suit yourself.

My number is 087 161 8730. Thank you,

Kind Regards,

**Jack McDonald**

Location Manager

Roadstone Ltd. Killough, Thurles, Co. Tipperary, E41 T622

**m:** +353 87 161 8730

**e:** [jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie) **w:** [roadstone.ie](http://roadstone.ie)



McDonald, Jack <jmcdonald@roadstone.ie>

22 Oct  
2024,  
17:49

to me

Hi Alice,

Apologies, it was the email sent on the morning of the 12<sup>th</sup> October.

There is a snippet of it below.

Kind Regards,

**Jack McDonald**

Location Manager

Roadstone Ltd. Killough, Thurles, Co. Tipperary, E41 T622

**m:** +353 87 161 8730

**From:** alice coman <[comanalice@gmail.com](mailto:comanalice@gmail.com)>  
**Sent:** Tuesday 22 October 2024 17:44  
**To:** McDonald, Jack <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)>  
**Subject:** Re: Roadstone Killough



**alice coman** <[comanalice@gmail.com](mailto:comanalice@gmail.com)>

8 Nov  
2024,  
19:11

to Jack

Hi Jack,

If you could confirm via email what the opening times are that would be great. There seems to be longer times recently. Please advise.

Kind regards

Alice

---

On Tue 22 Oct 2024 at 17:49, McDonald, Jack <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)> wrote:

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m: +353 87 161 8730

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**m:** +353 87 161 8730

**e:** [jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie) **w:** [roadstone.ie](http://roadstone.ie)



**McDonald, Jack** <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)>

18 Nov  
2024,  
09:36

to me

Hi Alice,

My apologies for the late reply.

From your original email we believe the activity was the fines plant and our planning allows us to operate 24 hours for the fines business.

If there is anything else please don't hesitate to contact me. Thanks

Kind Regards,

**Jack McDonald**

Location Manager

Roadstone Ltd. Killough, Thurles, Co. Tipperary, E41 T622

**m:** +353 87 161 8730

**From:** alice coman <[comanalice@gmail.com](mailto:comanalice@gmail.com)>

**Sent:** Friday 8 November 2024 19:11

**To:** McDonald, Jack <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)>

**Subject:** Re: Roadstone Killough



alice coman <comanalice@gmail.com>

18 Nov  
2024,  
12:23

to Jack

Hi Jack

What would this involve? Could you give more details? Does this include trucks attending the facility?

I presume you have an activity log for the fines plant.

Kind regards,

Alice Coman.

---

On Mon 18 Nov 2024 at 09:36, McDonald, Jack <[jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie)> wrote:

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Kind Regards,

**Jack McDonald**

Location Manager

Roadstone Ltd. Killough, Thurles, Co. Tipperary, E41 T622

m: +353 87 161 8730

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**m:** +353 87 161 8730

**e:** [jmcdonald@roadstone.ie](mailto:jmcdonald@roadstone.ie) **w:** [roadstone.ie](http://roadstone.ie)



alice coman <comanalice@gmail.com>

12 Feb 2025,  
13:47 (5 days  
ago)

to Jack

Dear Jack,

I was wondering if you could confirm that you had engaged someone to do field studies on the 29th of January ( the night of the community meeting)

Neighbours have multiple reports of a white van parked during the day and individuals with lights behind neighbouring houses.

Going forward, if you could advise myself and neighbours of reports being completed and unusual access behind houses it would be best.

PS you never replied to my last email.

Kind Regards,

Alice Coman.

Tipperary Planning Authority - Inspection Purposes Only!

<https://mail.google.com/mail/u/0/#search/Tipperary+county+council/FMfcgzQXJGmqlbSfDMwKJRQNWdsJPDvV?projector=1&messagePartId=0.1>

Tipperary Planning Authority - Inspection Purposes Only!

Robin Hill,  
Gaile,  
Thurles,  
Co. Tipperary.  
23/09/2024

planning@tipperarycoco.ie

Dear Tipperary County Council,

I am writing to express my concerns regarding the operations of Roadstone in our community and their apparent violation of the opening hours as outlined on their official website. The inconsistency in their operating hours has caused significant disruption and annoyance for local residents, including myself.

Despite being listed as operating during specific hours, there have been multiple instances when vehicles associated with Roadstone have been observed arriving and departing well outside these designated times. This not only generates unnecessary noise pollution during early morning and late evening hours but also raises safety concerns, particularly during times when visibility is low. I would be grateful if you could revert to me with the licences given to this facility, so I can assess how they are contravening it, in terms of opening hours and truck movements.

Furthermore, I would like to draw your attention to the increasing number of trucks on the road leading to the Roadstone facility. The current speed limit feels inadequate given the volume of large commercial vehicles utilising this route, which poses a potential hazard to both drivers and pedestrians. I respectfully request that the council consider reducing the speed limit on this road to ensure the safety of all who travel it, particularly as more trucks are seen on our roads with little deference to other road users.

I appreciate your attention to these matters and hope for prompt action to address these concerns. Thank you for your understanding and support in making our community a safer and more pleasant place to live.

I look forward to hearing from you at your earliest convenience.

Sincerely,

Alice Coman

Secretary to the Killough Residents Committee.

Tipperary Planning Authority - Inspection Purposes Only!



Tipperary County Council  
Civic Offices  
Cionmei  
Co Tipperary

17/02/2025 10:36:29

Receipt No. : CLONMEL/0/188751

Kilough Community Association  
Gail  
Thurles  
County Tipperary  
Eircode - E41 R2F6

PLAN APP FEE OBSERVE/OBJECTION 20.00  
GOODS 20.00  
VAT Exempt/Non-vatable  
2580019

Total : 20.00 EUR

Tendered :  
Cash 20.00

Change 0.00

Issued By : ANNE MARIE O DWYER  
From : CLONMEL TOWN RECEIPTS DESK  
Vat reg No. 3250712MH